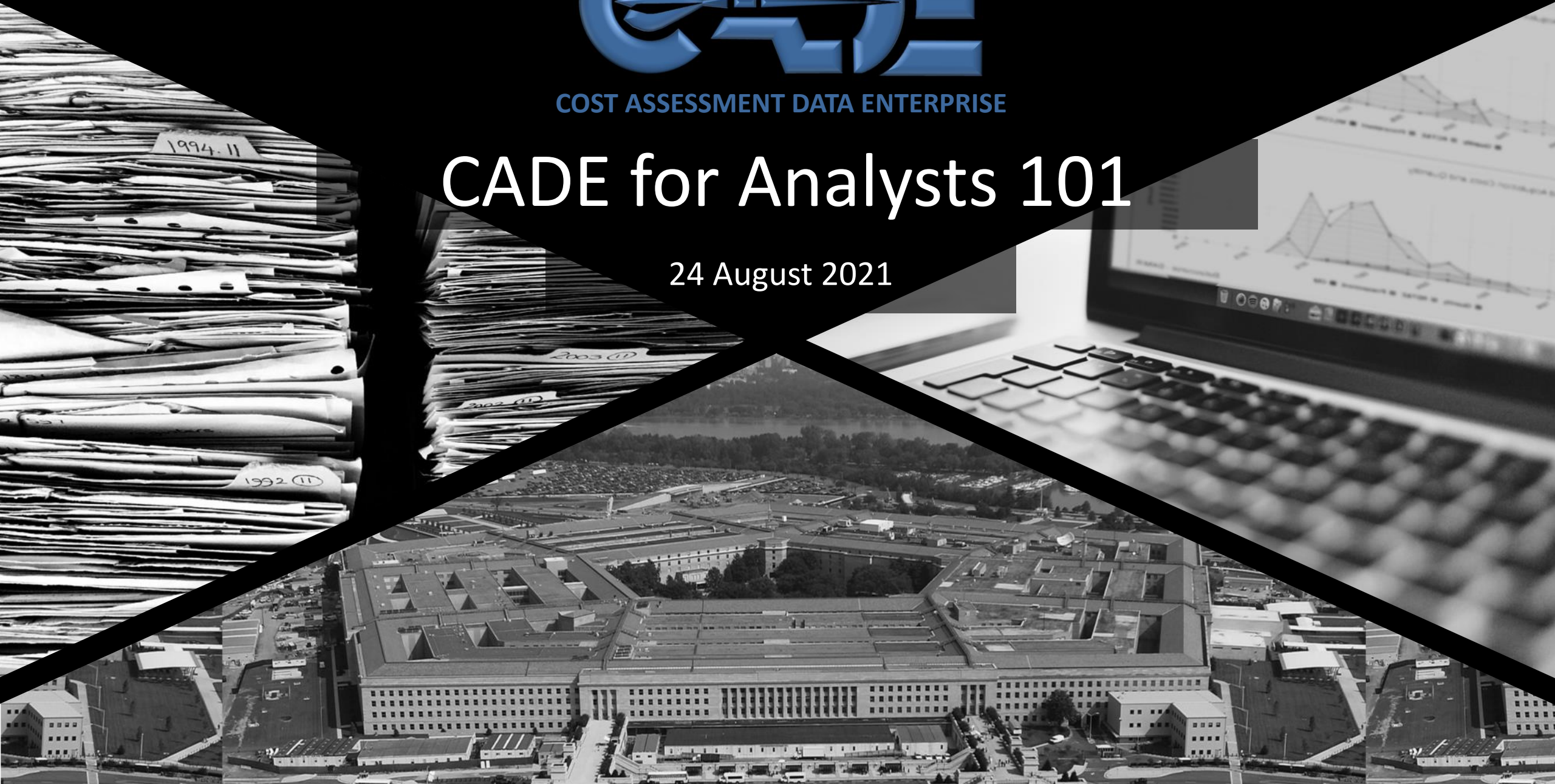




COST ASSESSMENT DATA ENTERPRISE

CADE for Analysts 101

24 August 2021





Time	Item
1:00-1:10	Introduction / Agenda / Meet the Team
1:10-1:25	CADE Overview
1:25-1:35	Data-Driven Estimating
1:35-1:50	CADE Virtual Walkthrough
1:50-2:10	CSDR Background & Policy
2:10-2:20	CSDR Planning Process
2:20-2:25	CSDR Execution
2:25-2:40	Halftime Game / Break
2:40-3:00	CSDR Plan & Deliverables Overview
3:00-3:20	CADE Data and Analytics Access and Demo
3:20-3:25	Additional Resources and Next Steps
3:25-3:30	Conclusion / More Learning Awaits!



By the conclusion of this training you will be able to:

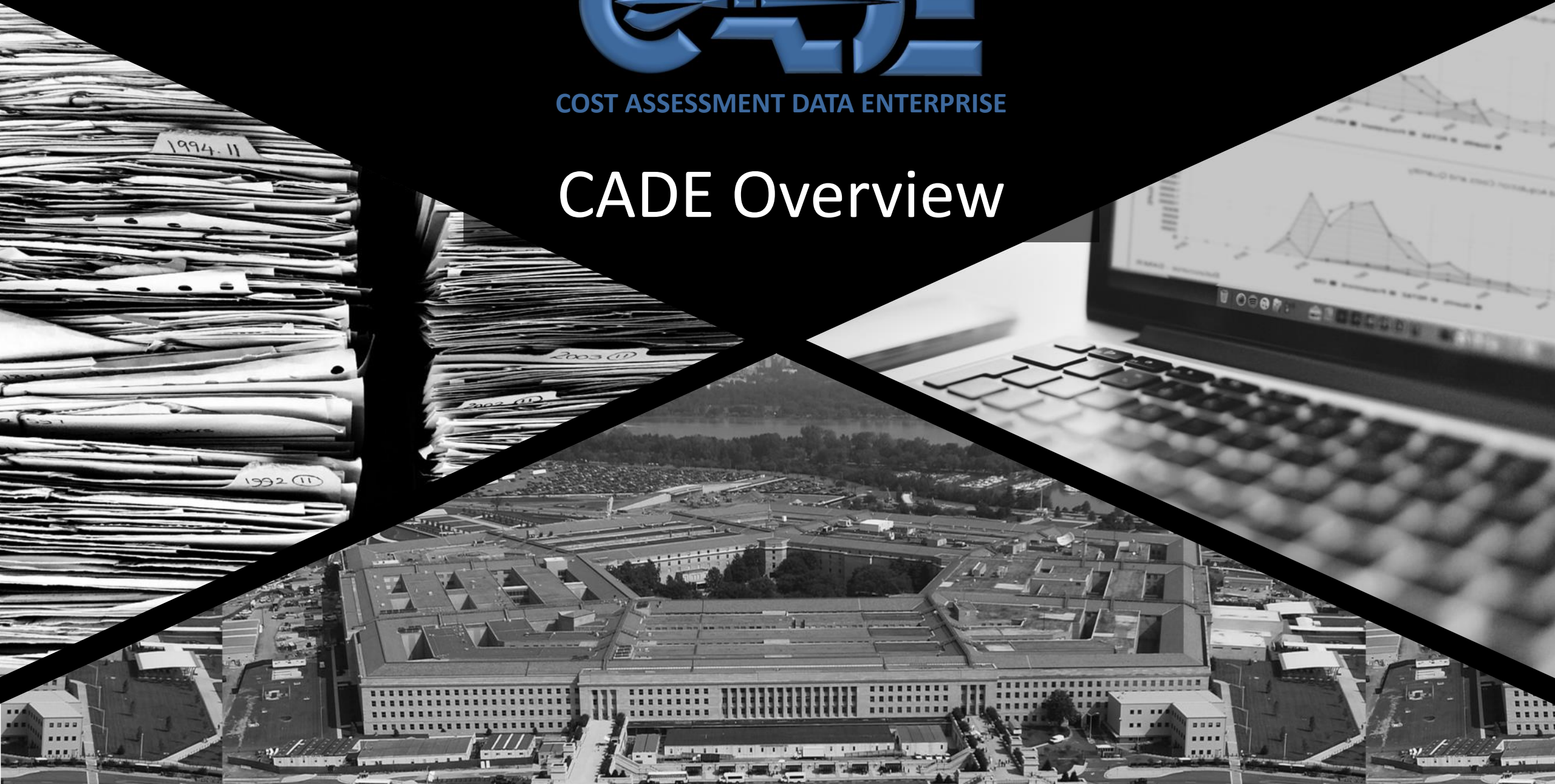
- Describe CADE and the data it stores.
- Understand the value CADE adds to analyst's effectiveness and efficiency.
- Describe the purpose of Cost and Software Data Reporting (CSDR).
- Understand policy and guidance documents for CSDR for ACAT I and Non-ACAT I Programs.
- Understand the basic types of data contained in the CSDRs.
- Review and identify the CSDR planning steps.
- Given a scenario and an assigned cost community role, recognize the responsibilities and actions required to navigate the CADE Portal to conduct an analysis of programmatic, cost, schedule, and software data for a program.

Note: This training displays example data, created for educational purposes. The numbers shown are not representative of actual contractor data.



COST ASSESSMENT DATA ENTERPRISE

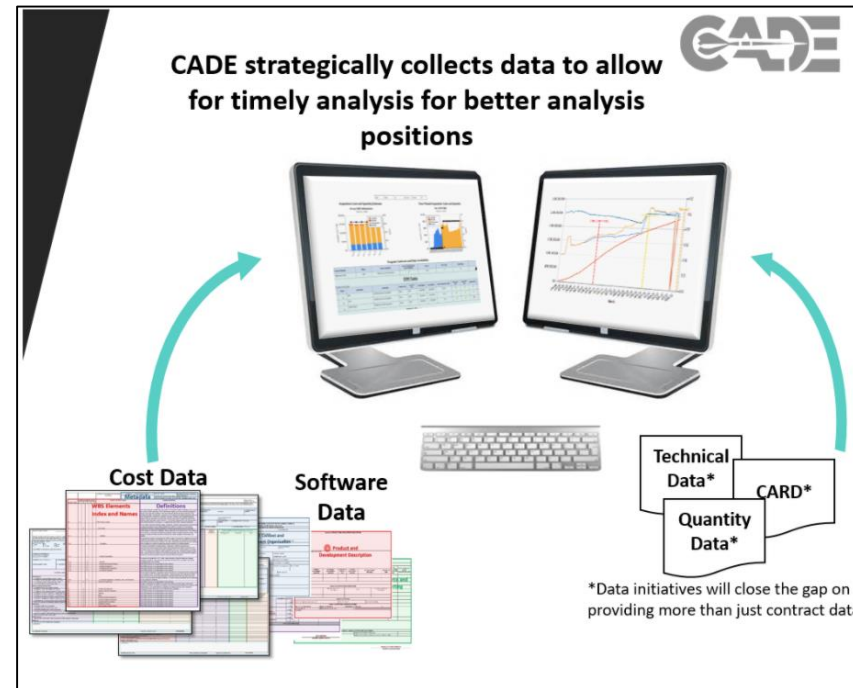
CADE Overview



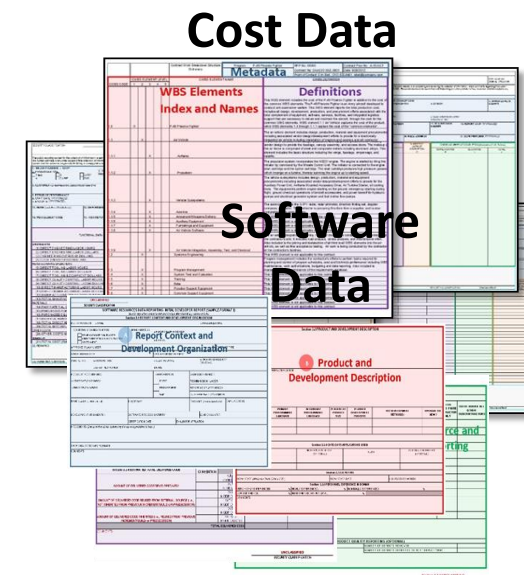


The Cost Assessment Data Enterprise ([CADE](#)) is an Office of the Secretary of Defense Cost Assessment and Program Evaluation (OSD CAPE) initiative to increase analyst productivity and effectiveness by collecting, organizing and displaying data in an integrated single web-based application, improving data quality, reporting compliance and source data transparency.

CADE is ***the authoritative data source*** for the defense cost estimating and analysis community.



The engine that facilitates data collection



- Comprehensiveness through collaboration
- Enforcers of structure for consistency
- Keepers of CSDR policies and database
- Facilitates all CSDR discussions

What is CADE?



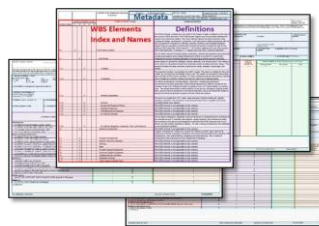
↔ ↺  <https://cade.osd.mil>



- › Actuals:
Cost & Technical Data
- › Program and Data
Situational Awareness
- › Analysis-Ready
Data Downloads
- › Quick-Look
Visualizations

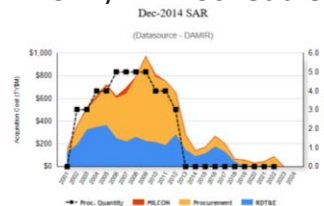
Cost

- › Analysis-Ready
Data Downloads
- › Profit & Fee
Visibility on FFP
contracts
- › Insight into
Prime and
Subcontractor



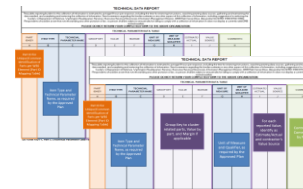
Acquisition

- › Completes the
story of a program
lifecycle cost
- › Program
Information
- › SAR/MAR
Annual Funding
- › SAR/MAR Schedule



Technical

- › Only place in the
DoD that ties
cost & technical
data
- › Software
analysis at the
CSCI level



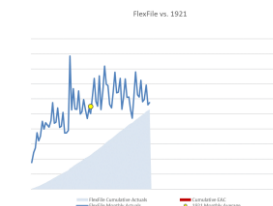
Library

- › Searchable data
for historical
reference at your
fingertips”
- Cost Estimates
- Funding Memos
- Program Briefings
- ICEs, SCPS
- Research Studies



Training

- › Fully populated
and functional
“fake” CADE
environment
(FACADE)
- Used in live and
online training
environments



CADE is the authoritative data source for estimating and analyzing Major Defense Programs

300+ Programs

9,000+ CCDR Submissions

Trustworthy Data



Secure Data Warehousing

- › Only accessible to DoD gov't employees
- › Reporting contractors require an ECA certificate
- › SETA contractors require an NDA for access
- › Demo website (FACADE) used for Training
- › Reporting Compliance Improvement

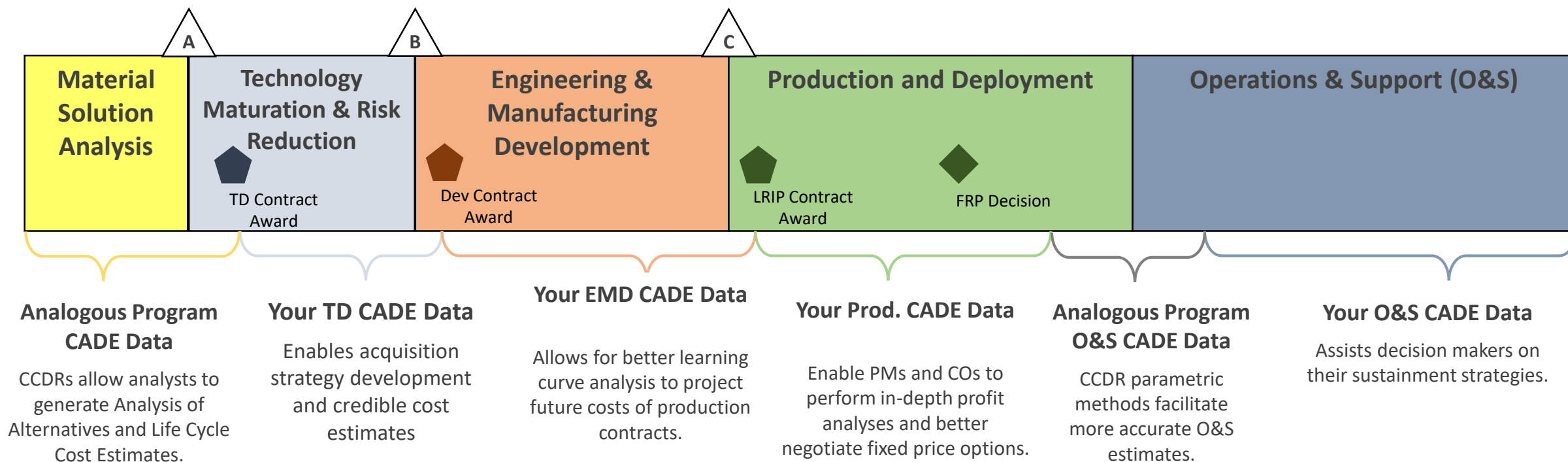
Data Based on Actuals

- › Data reviewed by PMOs, SCSs, and DCARC
- › Unbiased data: Holds no favor towards government or industry
- › Data are not based on estimates or guesses
- › Actuals include the full scope of program complexity

Why is CADE Important?



Analogous program CADE data is critical early in a program's lifecycle. As the program progresses, its own actual data becomes invaluable in budget formulations, contract negotiations, and source selections.





The Office of the Secretary of Defense

The Office of Cost Assessment and Program Evaluation ([CAPE](#)) provides independent analytic advice on all aspects of the defense program, including alternative weapon systems and force structures, the development and evaluation of defense program alternatives and the cost-effectiveness of defense systems.



Service Cost Centers

The Service Cost Centers are integral to the collaborative vision of all CADE initiatives and are the Service leaders of the cost community. They partner with CAPE on data collection initiatives and lead and contribute to CADE's most strategic initiatives.

- [Deputy Assistant Secretary of the Army-Cost and Economics](#)
- [Air Force Cost Analysis Agency](#)
- [Naval Center for Cost Analysis](#)



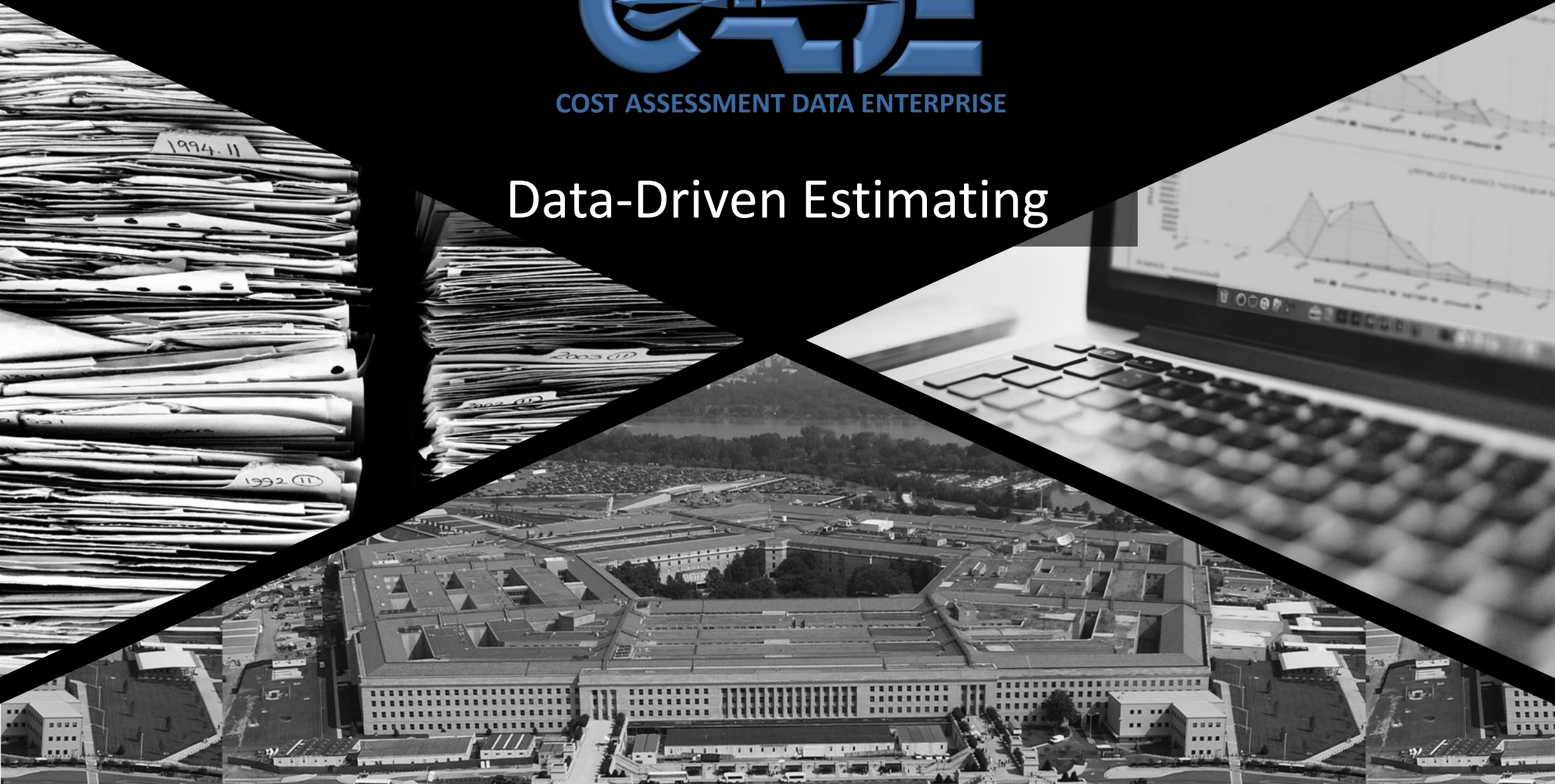
Key Collaborators





COST ASSESSMENT DATA ENTERPRISE

Data-Driven Estimating



- **Definition**

- [Cost and Schedule] Estimates predicated on authoritative, primary source, objective data
- Replace “Expert Opinion” with “Expert Judgment”

- **Importance**

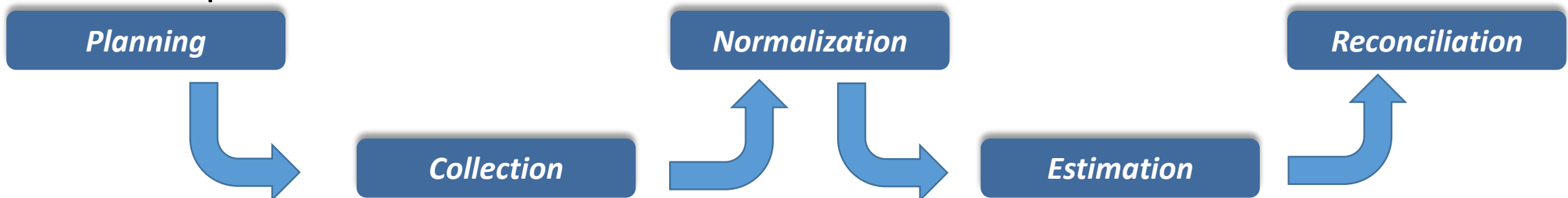
- Cost analysis “-ilities”: Actionable, defensible, reasonable, traceable, timely...
- Decision Support Processes: Acquisition, Budget (PPBE), Requirements (JCIDS)
- Shift the conversation from data (“Who got the right/better data?”) to analysis...and normalization
- What we were supposed to be doing all along!

- **What happens when we don’t get (or use) the data?**

- No good basis of estimate (BOE) for multi-billion-dollar program
- Unable to validate Multi-Year Procurement (MYP)
- Excessive (sub)contractor profit

Preaching to the choir, we know...

- **Systematizing data collection becomes more important**
 - *Ad hoc* is less reliable and less efficient
 - Look for opportunities to “bottle” the good stuff
 - Pay It Forward – be part of the Solution, not the Problem!
- **Centralizing data collection becomes more important**
 - Force multiplier in space (CAPE, SCA, SYSCOM, PEO,...) and time (MS A, B, C,...)
 - Expanding to non-ACAT I programs and Middle Tier Acquisition (MTA)
- **Collaborating around data becomes more important**
 - Identifying anomalies, providing context (cf. Cost IPT)
 - The proverbial “Wiki”



Data Types and Sources – Four Pillars/Big Six

Data Type	Source	URL	NEW! Developments
Acquisition	Defense Acquisition Visibility Environment (DAVE) / Defense Acquisition Management Information Retrieval (DAMIR)	https://dave.acq.osd.mil/	Selected Acquisition Report (SAR) Database in CADE [Jan 2019]
Cost	Contractor Cost Data Reporting (CCDR) Visibility and Management of Operating and Support Costs (VAMOSC)	https://cade.osd.mil/	FlexFiles [May 2019] Enterprise VAMOSC [TBD]
EVM	Integrated Program Management Data Analysis Reports (IPMDAR)	https://www.acq.osd.mil/evm/	EVM-CR Migration [Apr 2019]
Technical	Software Resources Data Reporting (SRDR) / <i>Technical Data Report (TDR)</i> / <i>Quantity Data Report (QDR)</i>	https://cade.osd.mil/	QDR [May 2019] SRDR Database [TBD]
Budget	Defense Resource Data Warehouse (DRDW) / Defense Repository for Common Enterprise Data (DRCED) aka ADVANA	https://advana.data.mil/	Budget Analytics [Jan 2019]

- **Contracts**
 - Contracts Database (KDB), price and schedule by CLIN and Mod
 - Available in CADE Data & Analytics – **DTM Hub**
- **Rates**
 - Contractor Business Data Report (CBDR), DD Form **1921-3** – updated DID
 - DCMA Contract Business Analysis Repository (CBAR)
- **Sustainment / Operating and Support (O&S)**
 - Functional Cost-Hour Report, DD Form 1921-5 → FlexFile
 - Maintenance and Repair Parts (**M/R**) Report
- **Schedule**
 - SAR Schedule Events (limited Normalization), Key Events, IMS (hanging file)
- **Risk**
 - SAR Variance Tables – bulk export from **SAR Database**
 - SRDR paired data, Initial vs. Final for SLOC and Effort – **SRDR Database**



- **Inflation**

- Indexes and Guidance on **Downloadable Tools** page
- Inflation and Escalation videos on **YouTube** (!), CADE Training channel
- *CADE eschews automated inflation adjustments (cf. VAMOSC)*

- **Estimates**

- ICEs, SCPs, POEs in CADE **Library / PRG-SR**
- Facilitate documentation and reconciliation
- *Never base an estimate on an estimate!*

- **Program Definition**

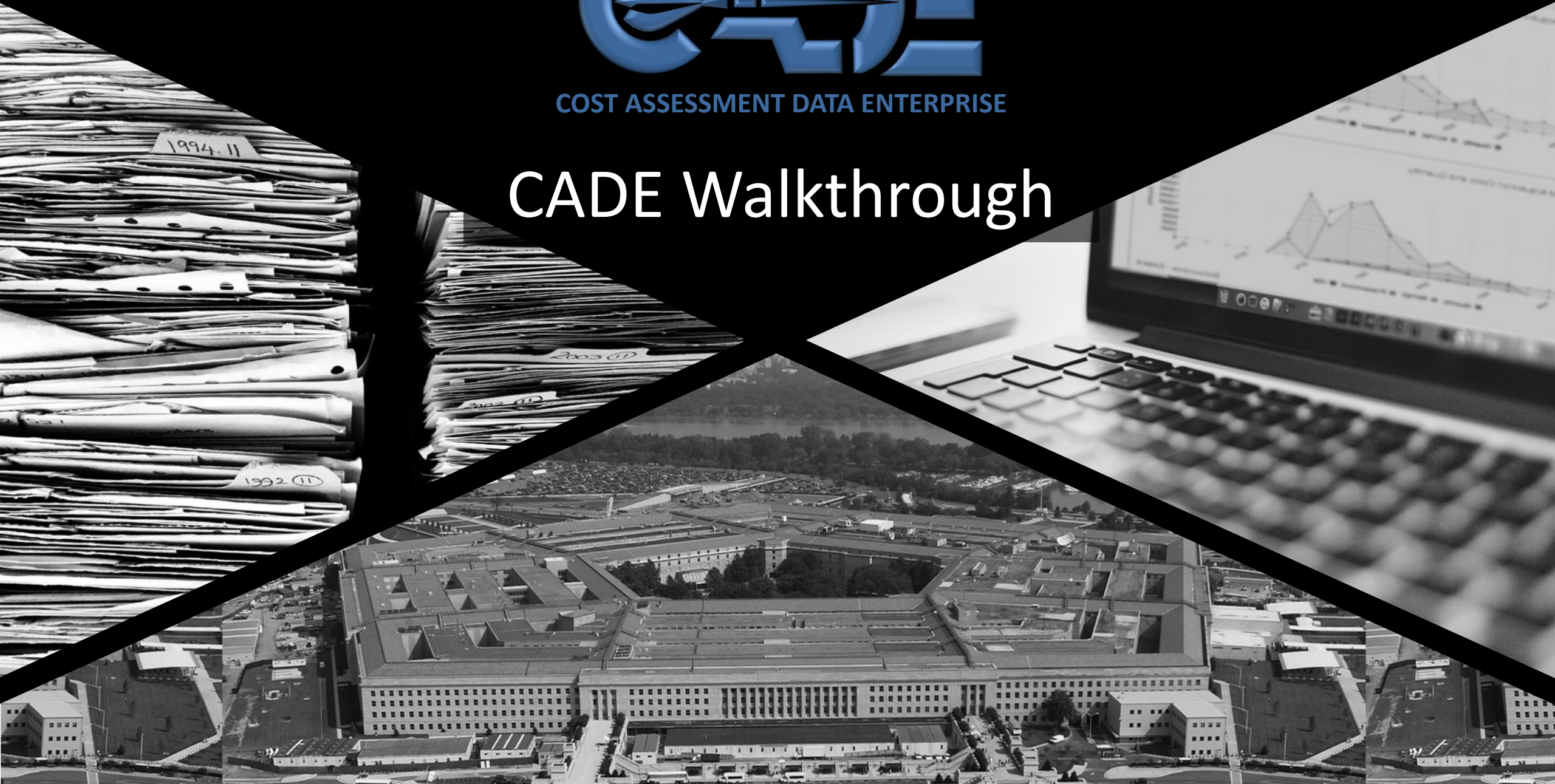
- Cost Analysis Requirements Description (CARD) in CADE **Library / PRG-SR**
- Shift to “tabular” CARD, annual updates

But is it data?!



COST ASSESSMENT DATA ENTERPRISE

CADE Walkthrough





- **CADE Public**

- <https://cade.osd.mil/> – links to CADE Portal and FACADE
- **Includes Policy, Training, and other resources**

- **CADE Portal**

- Requires Certificate – **CAC** (Government) or **ECA** (Industry)
- Customizable **Dashboard** and access to **Apps** via (collapsible) left-hand sidebar

- **Dedicated Apps**

- “Local” databases – **SAR** (Acquisition), **SRDR** (Software)
- “Unique” data types – **CARD** (Baseline), **1921-3** (Business Base)

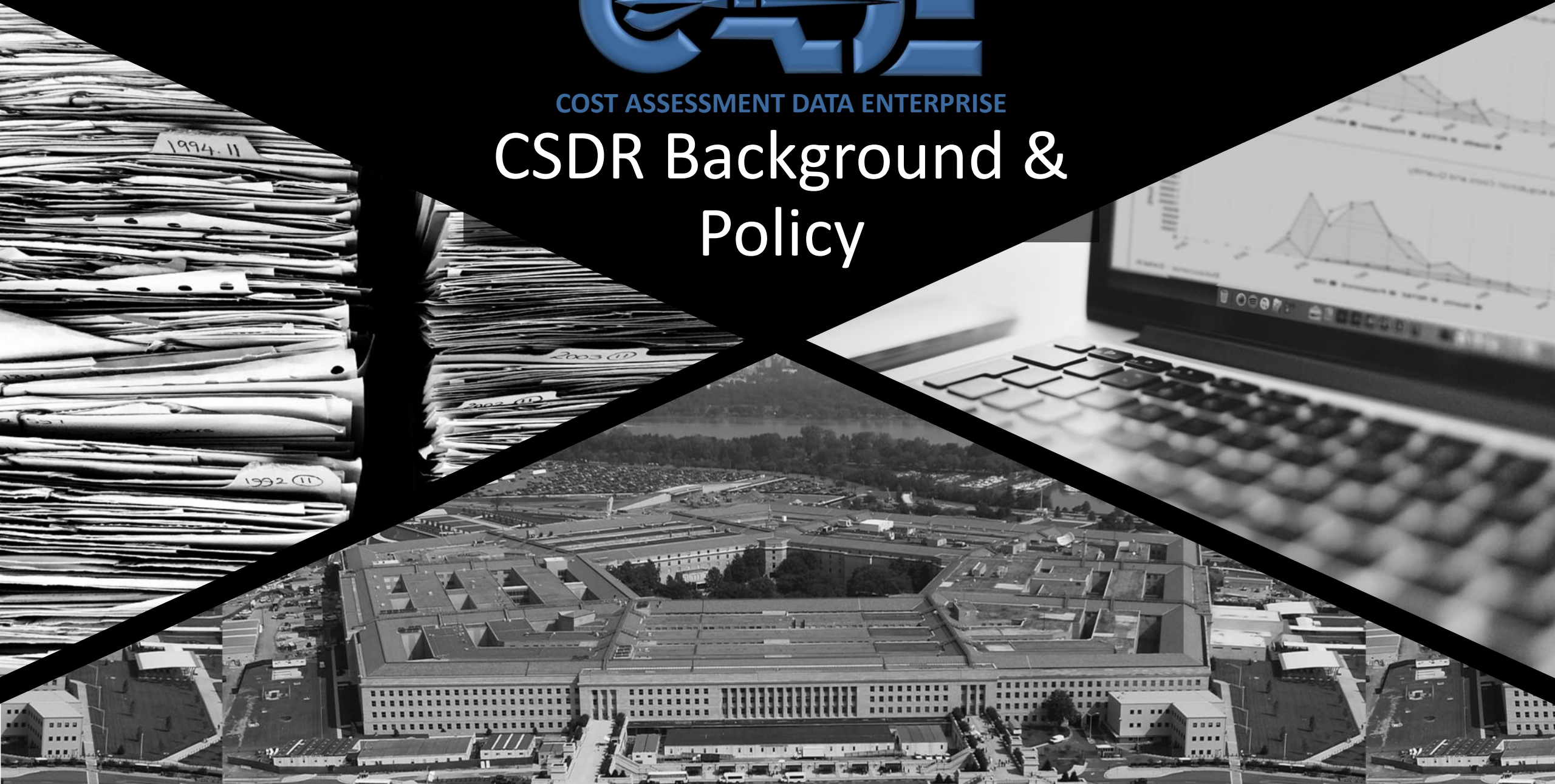
- **Data & Analytics**

- “Anchor store” of the mall – CSDR “one-stop shop” = **CSDR Browse**
- Data by Program
- Access to endorsed databases (**DTMHub**) and artifacts (**Libraries**)



COST ASSESSMENT DATA ENTERPRISE

CSDR Background & Policy



Types of CSDRs – FlexFiles

Maintenance and Repair (M/R)

List of touch maintenance events, with dates, durations, maintenance cause codes, planned or unplanned, etc. and a list of parts consumed during those maintenance events.

Cost and Hour Report (FlexFile)

Actual cost and hours according to government standard categories and contractor native structures.

FlexFile 101

Quantity Data Report

Ties the necessary quantity information to the FlexFile

Contractor Business Data Report (DD 1921-3)

Direct & Indirect cost, hour & employee data by functional category for a Contractor Business Unit

Technical Data Report

Provides context to the cost data by systematically capturing technical data parameters on contracts

Software Resource Data Reports (SRDRs)

Size, schedule & effort on data on software development



>\$50M = contract reporting threshold
>\$20M = scope reporting threshold
>\$250M = business entity contracts reporting threshold

Types of CSDRs – Legacy



Contract Work Breakdown Structure Dictionary (CWBS)

Lists all contract data reporting elements with definitions of technical, work, and cost content (recurring vs. nonrecurring by functional category)

Cost Data Summary Report (DD 1921)

Summary cost data for all elements on approved contract CSDR plan

Functional Cost-Hour Report (DD 1921-1)

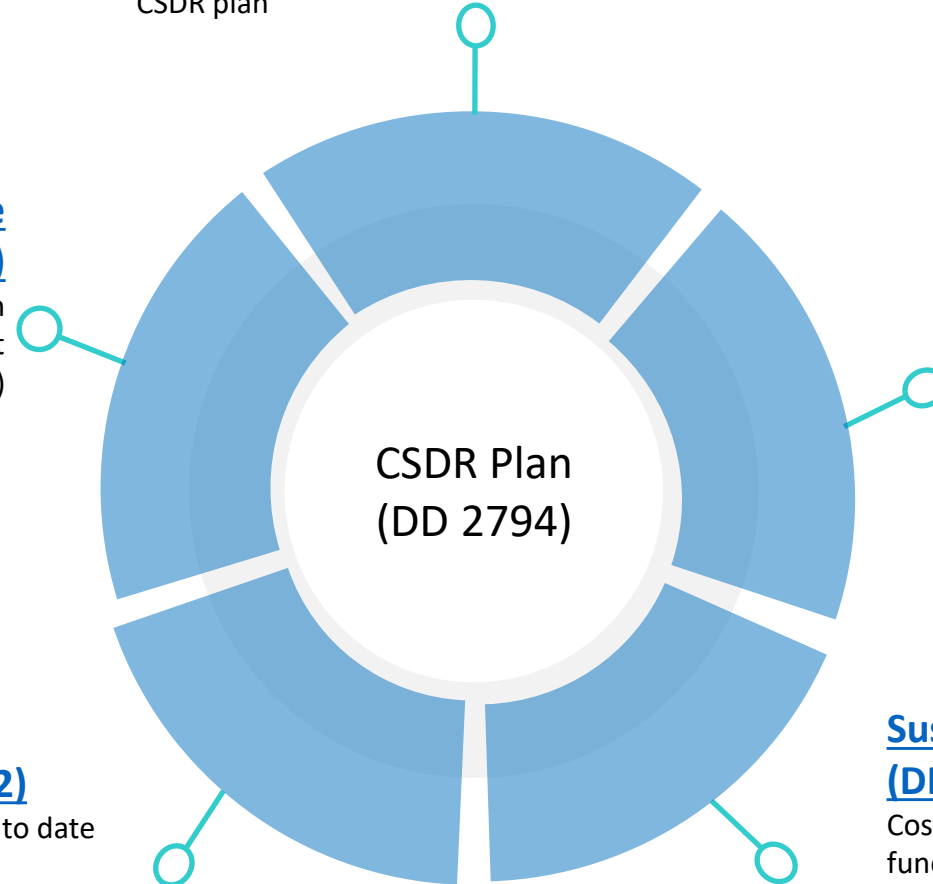
Cost and hour data for specific elements broken down by functional category

Sustainment Functional Cost Hour Report (DD 1921-5)

Cost and hour data for specific elements broken down by functional category

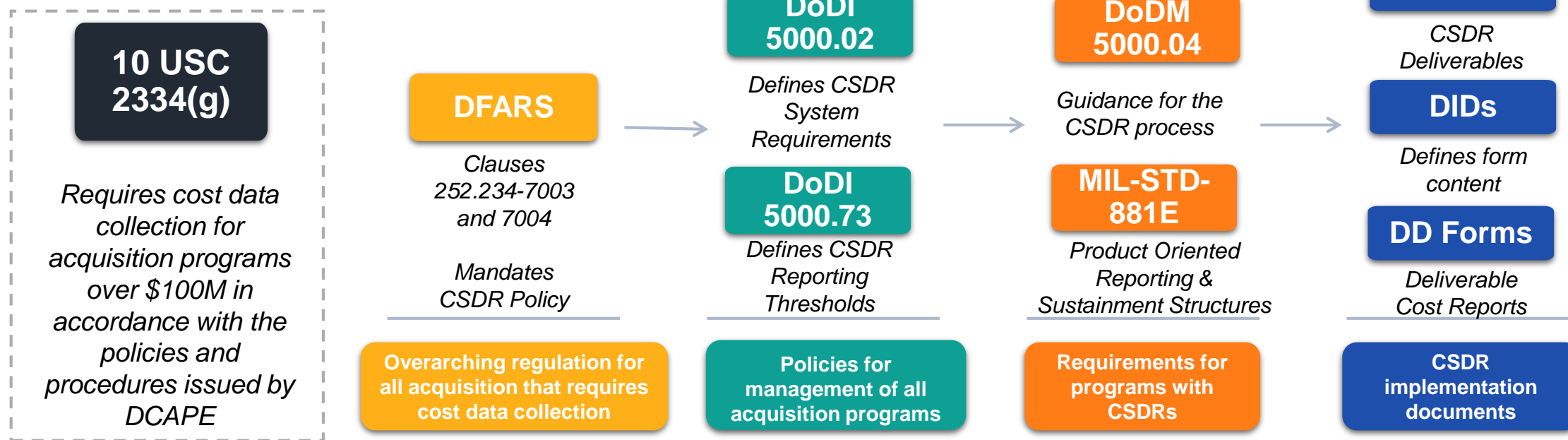
Progress Curve Report (DD 1921-2)

Lot or Unit reporting of direct recurring costs to date for specific hardware elements



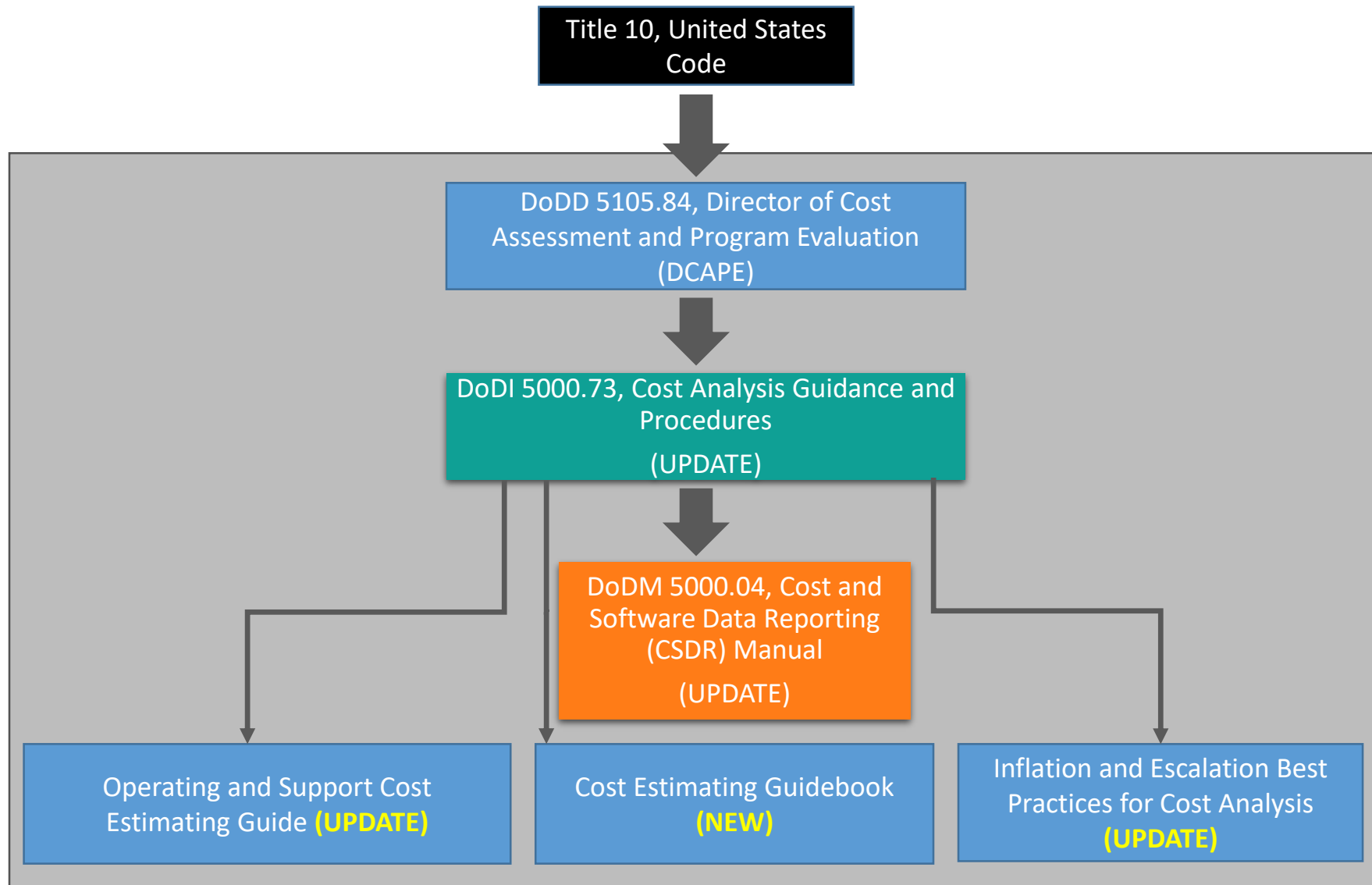
If utilizing legacy reports, these CDRs take the place of FlexFile and Quantity Data Report

It's The Law

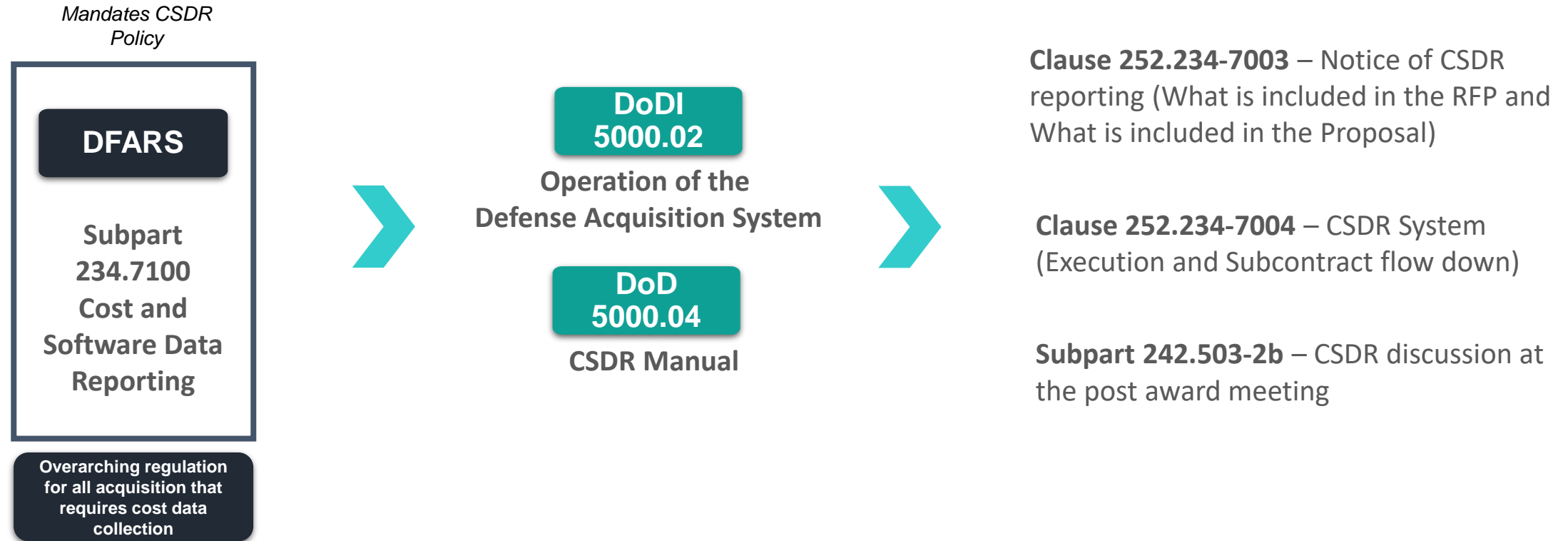


Systematic cost data collection is necessary for program stability

Why Should You Comply?



What is stated in the DFARS?



ACAT I Requirements - DoDI 5000.02 dated January 7, 2015



Table 7. CSDR System Requirements

REQUIRED REPORT	WHEN REQUIRED	SOURCE
<p>All ACAT I programs, for any contract or subcontract over \$50M</p> <p>Any contract providing equipment or service to an ACAT I (GFE)</p> <p>Any high risk/technical/interest contract between \$20M-\$50M as determined by CWIPT, Program Manager, or DDCA</p> <p>Any software development contract or subcontract over \$20M</p> <p>Any sustainment contract, regardless of ACAT, over \$50M</p>	<ul style="list-style-type: none"> All major contracts¹ and subcontracts, regardless of contract type, for ACAT I and IA programs and pre-MDAP and pre-MAIS programs subsequent to Milestone A approval, valued at more than \$50 million² (then-year dollars). Reporting is continued even if a program has been downgraded from an ACAT I or IA, unless waived by DCAPE. Not required for contracts priced below \$20 million (then-year dollars). The CDDR requirement on high-risk or high-technical-interest contracts priced between \$20 million and \$50 million is left to the discretion of the DoD Program Manager and/or the Deputy Director, Cost Assessment (DDCA). Required for major components (i.e., government furnished equipment) of an ACAT I program that are managed by the Services as ACAT II or ACAT III, and if the contract value exceeds \$50 million or if determined to be a high-risk or high-technical-interest contract priced between \$20 million and \$50 million by the Program Manager and/or the DDCA. Not required under the following conditions, provided the DoD Program Manager requests and obtains approval for a reporting waiver from the DDCA: procurement of commercial systems or procurement of non-commercial systems bought under competitively-awarded firm fixed-price contracts, as long as competitive conditions continue to exist. 	<p>DoD 5000.04-M-1 (Reference (at)) This instruction</p>
Software Resources Data Report (SRDR)	<ul style="list-style-type: none"> All major contracts¹ and subcontracts, regardless of contract type, for contractors developing or producing software elements within ACAT I and IA programs and pre-MDAP and pre-MAIS programs subsequent to Milestone A approval for any software development element with a projected software effort greater than \$20 million (then-year dollars). The SRDR requirement on high-risk or high-technical-interest contracts priced below \$20 million is left to the discretion of the DoD Program Manager and/or the DDCA. 	<p>DoD 5000.04-M-1 This instruction</p>
Contractor Business Data Report	<ul style="list-style-type: none"> Required for all contractor business entities (e.g., plant, site, or business unit) responsible for contracts with CSDR requirements. 	<p>DoD 5000.04-M-1</p>
Contractor Sustainment Report	<ul style="list-style-type: none"> All major contracts¹ and subcontracts, regardless of contract type, valued at more than \$50 million² (then-year dollars). 	<p>SEC. 832 of P.L. 112-81 (Reference (v)) DoD 5000.04-M-1</p>
<p>Notes:</p> <p>1. For CSDR purposes, the term "contract" (or "subcontract") may refer to the entire standalone contract, to a specific task or delivery order, to a series of tasks or delivery orders, to a contract line item number, or to a series of line item numbers within a contract. The intent is to capture data on contractual efforts necessary for cost estimating purposes irrespective of the particular contract vehicle used. All contracts for the procurement of end items, software, or services to support the acquisition of MDAP and MAIS programs (or ACAT II and III programs which meet the above thresholds) must include the Data Item Descriptions (DIDs) and Contract Data Requirements Lists necessary for the reporting of CSDR data.</p> <p>2. For CSDR purposes, contract value will represent the estimated price at contract completion (i.e., initial contract award plus all expected authorized contract changes) and be based on the assumption that all contract options will be exercised.</p> <p>3. CSDR is further discussed in section 4 of Enclosure 10.</p>		

DoDI 5000.73 update



- Approved by DCAPE, dtd 13 Mar 2020
 - 1st update since 2015)
- Alignment with Acquisition Pathways
 - **Major Capability Acquisitions** – traditional MDAPs
 - **Middle Tier of Acquisition (MTA)** Programs – aka Section 808
 - **Defense Business Systems (DBS)** – Artist Formerly Known As MAIS
 - **Contracted Services**
 - **Software**
- Importance of uploading documentation to CADE Library
- Clear CSDR reqts by Acquisition Pathway
 - In a nutshell, ACAT I *and* II level programs
- Access via <https://cade.osd.mil/News/blog>

*Table 1 replaces
DoDI 5000.02
Table 7*

REPORT REQUIRED	WHEN REQUIRED
Contractor Cost Data Report	ACAT I-II Programs <ul style="list-style-type: none"> • All contracts, subcontracts, government-performed efforts, and major components (i.e., government furnished equipment), including FMS and programs in sustainment, regardless of acquisition phase and contract type, including non-FAR agreements, valued at more than \$50 million, then-year dollars, for current and former ACAT I – II programs. • High-risk or high-technical-interest, as determined by the CSDR plan approval authority, or software contracts priced between \$20 million and \$50 million, then-year dollars.

CSDR applies to more programs than ever!



MIDDLE TIER OF ACQUISITION

- *Rapid Prototyping Programs*
 - CAPE or Service Cost Agency (SCA) conducts life-cycle cost estimates for programs likely to exceed acquisition category (ACAT) I thresholds
 - Estimates for programs that do not exceed the ACAT I threshold must be conducted in accordance with guidance issued by the relevant SCA
- *Rapid Fielding Programs*
 - CAPE or the SCA conducts life-cycle cost estimates for programs likely to exceed ACAT I or II thresholds
 - DoD Components must conduct life cycle cost estimates for rapid fielding programs that do not exceed the ACAT II threshold in accordance with guidance issued by the relevant SCA



COST ASSESSMENT DATA ENTERPRISE

CSDR Planning Process





Major Terminology Overview

CSDR Term	Definition
Cost	The expense incurred for creating a product or service being sold by a company. The amount it takes the contractor to produce the item in terms of labor, material, overhead, etc.
Price	The amount a customer is willing to pay for a product or service. The difference between the price paid and the costs incurred is the profit/fee.
CWIPT	The Cost Working-Group Integrated Product Team (CWIPT) is a cross-organizational group responsible for preparing CSDR plans and plan revisions, reviewing CSDR plan waiver requests, and providing recommendations to the CSDR plan approval authority. It is composed of team members from CAPE (whose participation is required for programs that exceed the ACAT I dollar threshold), the SCA, the PMO, DCARC, and other organizations, as needed and recommended by CAPE, the SCA, and the PMO.
DDCA	The Deputy Director of Cost Assessment (DDCA) establishes CSDR policies, procedures, and processing requirements, is the CSDR plan approval authority for all programs that exceed the acquisition category (ACAT) I dollar threshold, and adjudicates requests for data collection waivers from the DoD Components.
Contract	Any prime contract with the U.S. Government that requires joint participation with other prime contractors to accomplish the government requirement. Joint participation involves the potential sharing of information, data, technical knowledge, expertise, and resources. Such participation is intended to ensure the greatest degree of cooperation to meet the terms of the contract in satisfying the common requirement.
Subcontract	Any agreement, purchase order, or instrument other than a prime contract calling for work for the material required for the performance of one or more prime contracts. It usually covers procurement of major components of subsystems that require the subcontractor to do extensive design, development, engineering, and testing to meet a prime contractor's procurement specifications.
Recurring	CSDRs require reporting separated by recurring costs. See handout for definition.
Nonrecurring	CSDRs require reporting separated by nonrecurring costs. See handout for definition.
Work Breakdown Structure	CSDRs require bucking of costs in defined reporting elements. See handout for definition.
Functional Category	CSDRs require the costs broken out into functional categories. See handout for definition.

Roles & Responsibilities



DOD PROGRAM MANAGEMENT OFFICES (PMO) / CONTRACTING AGENCY

- ❖ Notifies CAPE and the CWIPT of upcoming contracts or actions requiring CSDRs
- ❖ Incorporate an approved CSDR plan into a solicitation (e.g., RFP) or agreement
- ❖ Works with other members of the CWIPT to prepare CSDR plans and plan revisions
- ❖ Ensures that CSDRs are submitted in a timely manner pursuant to approved CSDR plans



COST WORKING-GROUP INTEGRATED PRODUCT TEAM (CWIPT)

- ❖ Made up of OSD CAPE, Applicable Component Cost Centers, and System Commands
- ❖ Implement the processes and procedures CSDR Manual and, as appropriate, develop DoD Component guidance
- ❖ Identify and advise the DoD PM of cost analysis requirements for programs and contracts to facilitate the preparation of timely, high-quality cost estimates
- ❖ Review all DoD Component CSDR plans and plan changes to ensure usability



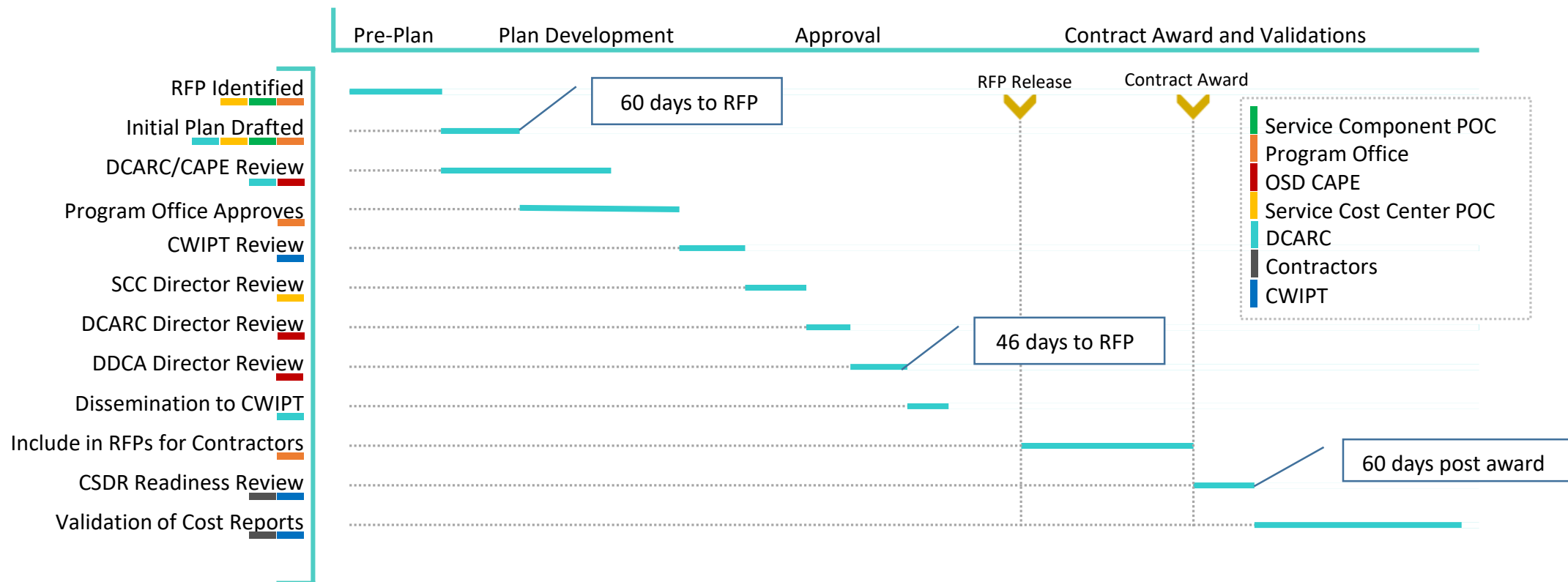
DEFENSE COST AND RESOURCE CENTER (DCARC)

- ❖ Responsible for facilitating the development of CSDR plans
- ❖ The primary office for final receipt, validation, acceptance, and distribution of CSDRs
- ❖ Administers the CSDR system (CADE) for all ACAT I and IA programs and serves as the repository for all CSDR data

Planning Process Flowchart



CADE 201



➤ **Prepare CSDR Plan Package for Approval 60 – 180 days prior to RFP release**

■ Plan package should include the following documents for **NEW** contracts:

- Contract Plan (Form 2794)
- CSDR CDRLs
- Program Schedule
- Statement of Work (SOW)
- Subcontractor Plan (Form 2794)
- Plan Package Template
- Contract Resource Distribution Table (RDT)

■ Plan package should include the following documents for **REVISED** contracts:

- Updated Contract Plan (Form 2794)
- Latest Program Schedule
- Plan Package Template
- Updated Contract Resource Distribution Table (RDT)

Prepare and submit to
DCARC for upload into CADE
And to begin the
review/approval process



COST ASSESSMENT DATA ENTERPRISE

Post Award Conference



Why have a Post Award Conference? **DFARS Requires it!** 242.503-2 Post Award Meeting procedure

✓ The Post Award Conference...

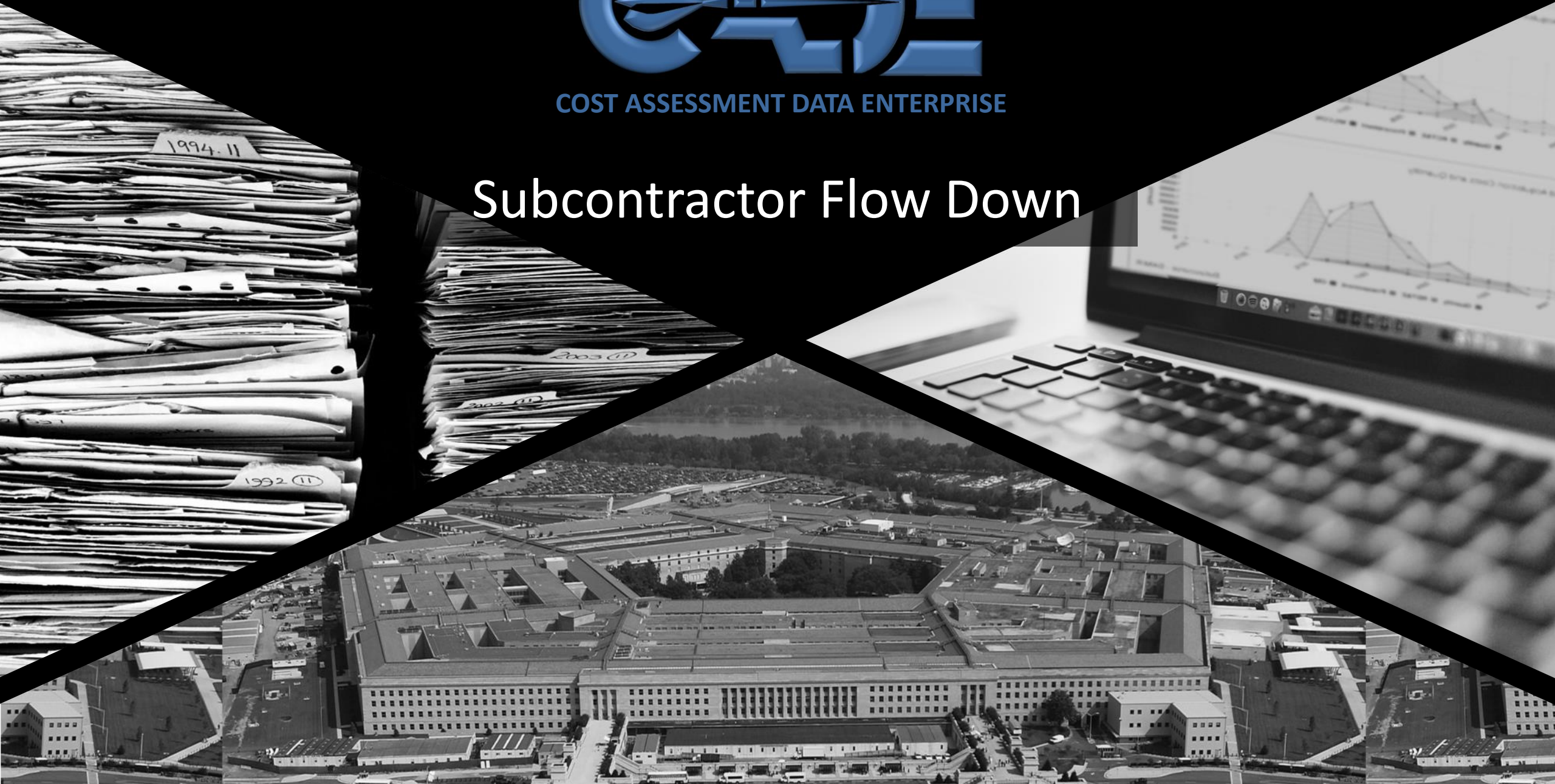
- Can be pre or post-contract award for potential or actual offeror has questions about CSDR plan.
- Is often the first chance Contractor and CWIPT members have to review a CSDR plan together.
- Gives Contractor and CWIPT members an opportunity to ensure a common understanding of CSDR plan requirements.
- Gives Contractors an opportunity to propose changes to the CSDR plan so that it will better reflect their technical approach and/or tailor reporting to their accounting system.
- Is organized by the program office but DCARC and CAPE can lead the meeting (we have a meeting guide online!)

Productive Post Award Conferences make CSDR collection easier for reporting entities and results in better data for the Government.



COST ASSESSMENT DATA ENTERPRISE

Subcontractor Flow Down



CSDR Subcontractor Flow-Down



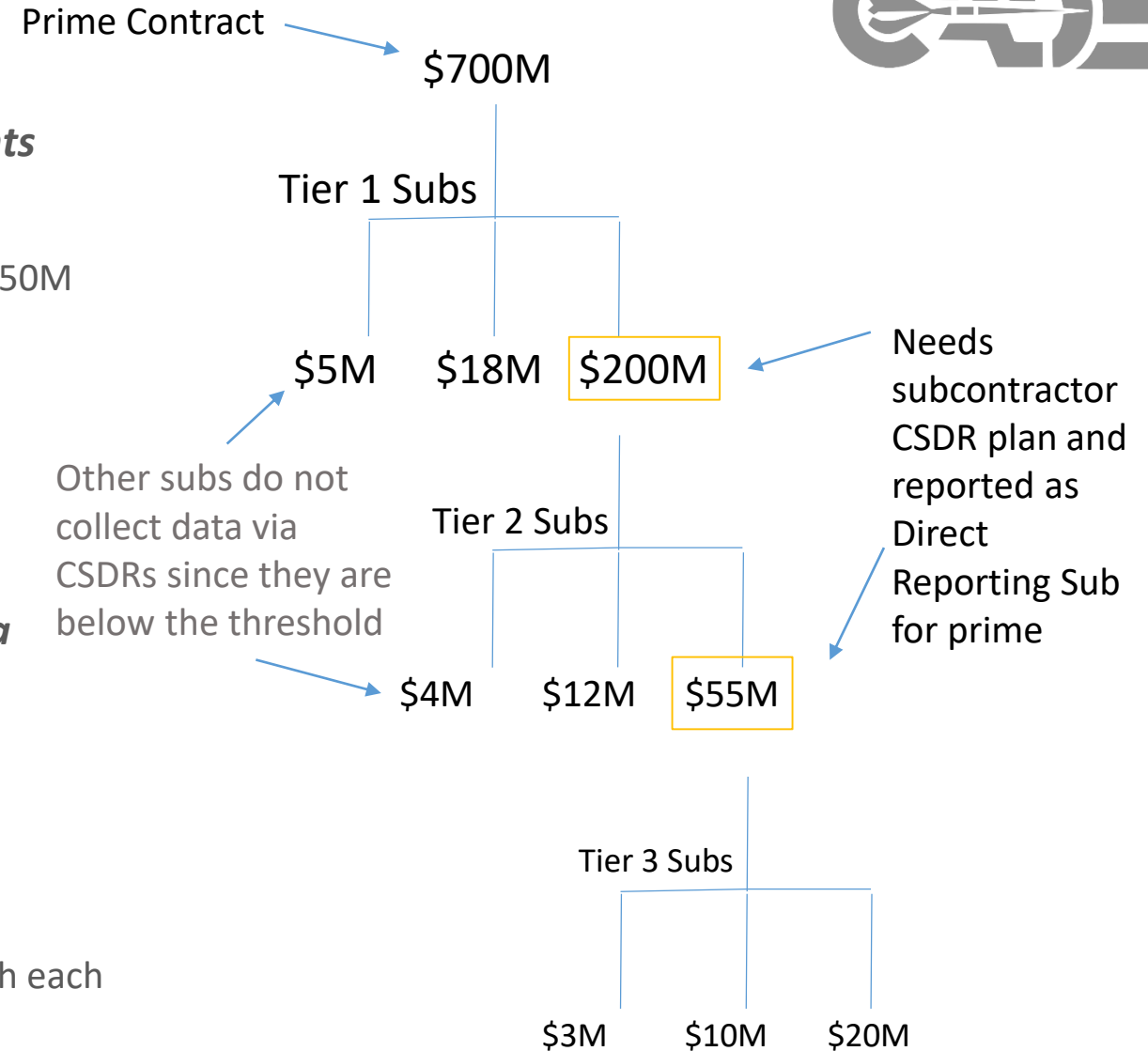
Prime contractor is required to flow-down CSDR requirements

- Subcontractors to the Prime contractor may also be required to provide CSDR data if their portion of the prime contract exceeds \$50M
- The RDT is provided by the Prime contractor at its Post Award Conference and the CWIPT identifies subcontractors that will be required to be direct reporting subcontractors

CSDR subcontractor flow-down and reporting via the RDT is a persistent contractual requirement:

The RDT identifies...

- The total anticipated contract value between the prime and any subcontractors;
- Identifies which subcontractors are performing work to accomplish each CSDR WBS element.
- The RDT does not have a prescribed DD Form format/DID. cPet (which is a CSDR support software) can generate a template



CADE 201



COST ASSESSMENT DATA ENTERPRISE

CSDR Plan & Deliverables Overview





COST ASSESSMENT DATA ENTERPRISE

CSDR Plan

DD 2794



**Pg. 1, Metadata**

- Program Information
- Contract Information
- Reporting Information

Pg. 2, Reporting

- Define reporting WBS
- Indicate where actual and forecast cost data is required
- Indicate which elements require certain report types

Pg. 3, Events

- Indicate when and which reports are required
- Indicate the frequency and submission of reports

Pg. 4, Remarks

- Enter any pertinent remarks about the CSDR Plan that help explain or clarify any of the reports

Pg. 5, Scope Def

- Indicate the Order/Lots and End Items that the contractor will be tagging the reported dollars and hours to
- Require Unit Reporting in box 18c if the CWIPT required unit cost reporting

Pg. 6, SRDR Dev

- Define software releases and CSCIs
- Link software product size reporting elements to Reporting tab
- Link software product size submissions to Events tab

Pg. 7, SRDR Mx

- Define software releases
- Link software product size reporting elements to Reporting tab
- Link software product size submissions to Events tab

Pg. 8, Tech Rqts

- Refined Contract-Specific Technical Parameters
- Commodity and Phase Specific Technical Parameters

CSDR Plan lays out all reporting requirements on contract

Requirements on Contract



Each CSDR deliverable requires own CDRL and cites their own DID

- Cost and Hour Report (FlexFile)
- Quantity Data Report
- CWBS Dictionary
- DD 1921: Cost Data Summary Report
- DD 1921-1: Functional Cost-Hour Report
- DD 1921-5: Sustainment Functional Cost-Hour Report
- DD 1921-2: Progress Curve Report
- DD 1921-3: Contractor Business Data Report
- Software Development Report
- Software Maintenance Report
- Maintenance and Repair Report
- Technical Data Report



DATA ITEM DESCRIPTION
Title: Cost and Hour Report (FlexFile)

DATA ITEM DESCRIPTION
Title: Quantity Data Report

DATA ITEM DESCRIPTION
Title: Software Resources Data Reporting: Development, Maintenance and Enterprise Resource Planning Development Reports, and Data Dictionary

DATA ITEM DESCRIPTION
Title: MAINTENANCE AND REPAIR PARTS DATA REPORT

DATA ITEM DESCRIPTION
Title: Technical Data Report

Number: DI-MGMT-82165
AMSC Number: 9871
DTIC Applicable: No
Preparing Activity: CAPE

Approval Date: 20171116
Limitation:
GIDEP Applicable: No
Project Number: MGMT-2017-032

USE/RELATIONSHIP: The Technical Data Report is the Department of Defense (DoD) system for collecting technical parameter data as part of the Cost, Software, and Data Reporting (CSDR) requirement. The resulting data repository serves as the primary source for contract cost, software, and technical data for many DoD resource analysis efforts, including cost database development, applied cost estimating, cost research, program reviews, Analysis of Alternatives (AoA), and life cycle cost estimates. The Technical Data Report allows the Government to produce independent assessments of technical and programmatic solutions, and the data provides context to the cost data that assists in developing cost estimating relationships.

The Technical Data Report is structured around a format that contains the content and relationships required for the electronic submissions. This Data Item Description (DID) summarizes the Technical Data Report and provides instructions to complement the data requirements specified in the contract for CSDR reporting.

Technical Data Report data will be used by DoD Component staff, including program managers, systems engineers, cost estimators, logistics and financial management personnel to: (1) review and evaluate the program technical baseline; (2) describe the technical parameters required to develop a program life cycle cost estimate; and (3) collect technical and programmatic information in support of system trade off analysis and cost analysis activities. It is important that the data be as accurate as possible so that they may be used for their intended purposes.

The Technical Data Report is related to other program acquisition requirements, including the Cost Data Summary Report (DI-FNCL-81565C), Functional Cost-Hour Report (DI-FNCL-81566C), Sustainment Functional Cost-Hour Report (DI-FNCL-81992), Cost and Hour Report (FlexFile) (DI-FNCL-82162), Quantity Data Report (DI-MGMT-82164), Maintenance and Repair Parts Report (DI-MGMT-82163) and SRDR: Development/Maintenance (DI-MGMT-82035A).

Reporting is required throughout the complete life cycle to include the Operating and Support (O&S) phase of the program. Contract reporting is required throughout the life of the contract. Software sustainment activities are captured using the separate SRDR, Software Maintenance and Data Dictionary DID (DI-MGMT-82035).

For background and detailed requirements related to Cost, Software, and Data Reporting (CSDR), refer to DoD 5000.04-M-1 (or latest version), "Cost and Software Data Reporting (CSDR) Manual" (or latest version).

The Technical Data Report Data Item Description (DID) is structured around the four data groups below:

Technical Data Group Name	Data Group
Report Metadata	A
DID FORM 2794 Data Elements	B
Technical Data Parameters	C
Technical Data WBS Mapping ID	D

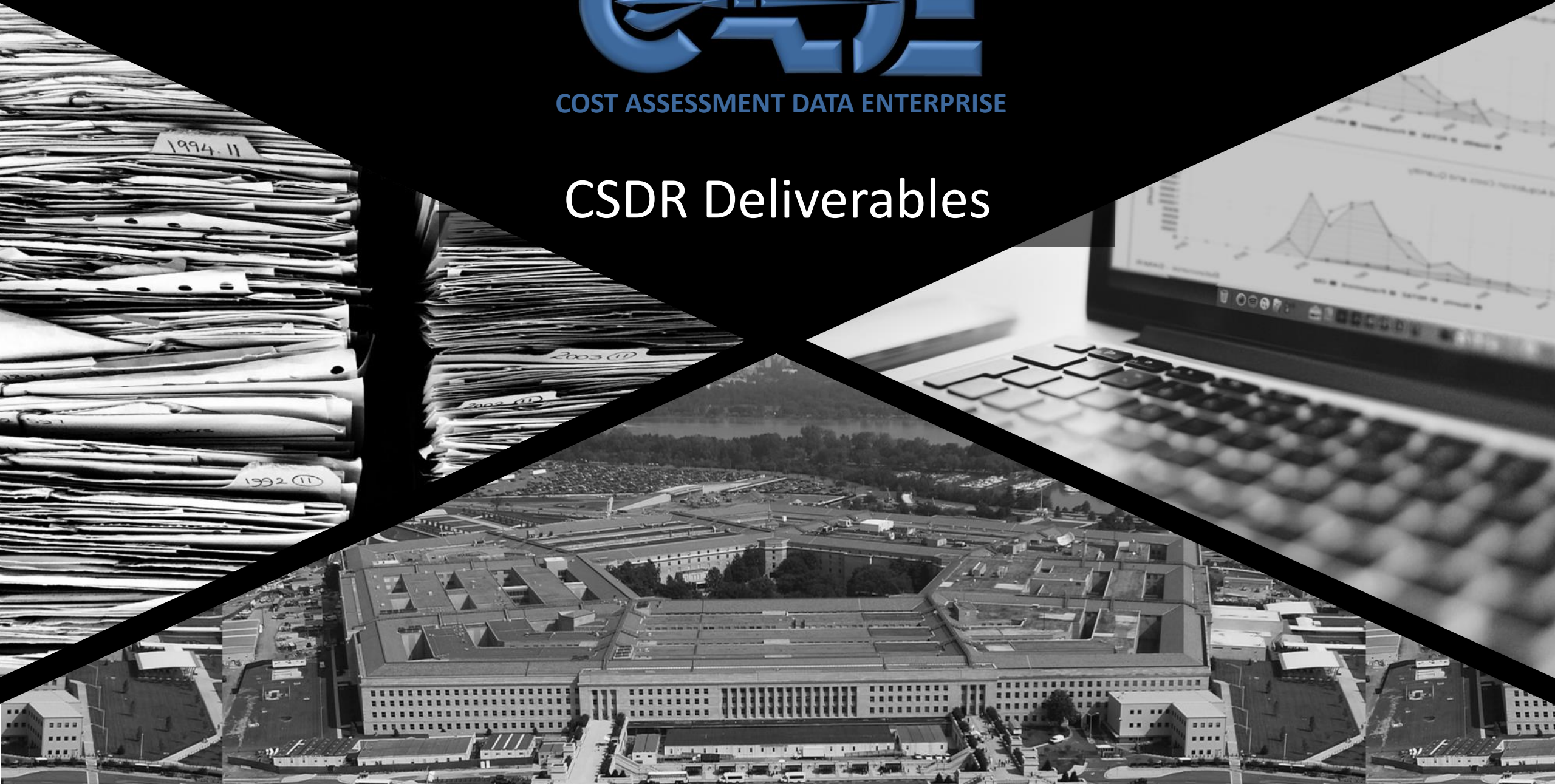
A. Data Group A - Report Metadata: Provides metadata on the contract that allows the submitted data to be associated with other Data Groups and program data.

Source: <https://assess.dia.mil> -- Downloaded: 2017-11-29T17:04Z
Check the source to verify that this is the current version before use.



COST ASSESSMENT DATA ENTERPRISE

CSDR Deliverables



Cost and Hour Report (FlexFile)

Data Group A

Report Metadata

Approved Plan Number
Submission Event
Period of Performance
Reporting Organization
As of Date
Date Prepared
more in the DID...

Data Group B

DD Form 2794 Data Elements

WBS Element
Order/Lot
End Item

Data Group C

Definitions and Remarks

WBS Element Definitions
Remarks by WBS Element
Summary Remarks

Data Group D

Summary Elements

Order/Lot
Subtotal
General and Administrative
Undistributed Budget
Management Reserve
Facilities Capital Cost of Money
Contract Fee
Contract Price

Data Group E

Actuals To Date (ATD)

Account
Reporting Period
CLIN
Nonrecurring or Recurring
Functional Category / Overhead
Standard Functional Category
Unit/Sublot
WBS Element
Order/Lot and End Item
ATD (Dollars and Labor Hours)

Data Group F

Allocation Methodology

Allocation Method

Data Group G

Forecasts At Completion (FAC)

FAC (Dollars)
FAC (Labor Hours)

Greatest value to cost estimator, in many cases, will be the additional insight requested in Group E

Legacy Element

The core of the FlexFile is providing dollars and hours at the **account** level in **contractor native categories, time phased**.

- Insight into contractor's native Functional Categories
- Account level reporting at or below the WBS
- Data time-phased monthly or to align with contractor's financial calendars
- Continuity with prior reports by requiring the legacy government tags

Quantity Data Report

Data Group A

Report Metadata

Approved Plan Number
Submission Event
Period of Performance
Reporting Organization
As of Date
Date Prepared
more in the DID...

Data Group B

Government Furnished Equipment

WBS Code/Level/Name
Order/Lot
End Item

Data Group C

Quantity at Completion

Delivered Quantity At Completion
Internal Quantity At Completion
Co-production or Concurrent
Quantity At Completion
Government Furnished Equipment At Completion
Remarks

Data Group D

Assessed Quantity to Date

Quantity Completed To Date
Quantity In Process
Remarks

Data Group E

Sequencing (as required by Plan)

First Unit Number
Last Unit Number
Is Internal

Legacy Element

The Quantity Report ties the necessary quantity information to the FlexFile:

- Units to date should reflect an actual count of physically completed units
- Allow sequencing quantities to be optional through Planning process for each End-Item as not all End Items may require sequencing (e.g., Kits)
- Sequencing was allowed for lower level WBS elements in legacy 1921-2, but FlexFile does not sequence WBS elements (only End Items)
- To Date and In Process to be defined by contractor in the Remarks section



Major Takeaways

- › Definitions for all elements reporting costs
- › Technical, physical, and cost efforts for each element
- › Recurring vs. NRE breakout

CWBS CODE	CWBS ELEMENT LEVEL					CWBS ELEMENT NAME	CWBS DEFINITION
	1	2	3	4	5		
1.0	X					P-49 Phoenix Fighter	This WBS element includes the cost of the P-49 Phoenix Fighter in addition to the cost of the common WBS elements. The P-49 Phoenix Fighter is an Army aircraft developed to conduct anti-submarine warfare. This WBS element reports the total production cost, includes all design, development, production, and procurement efforts associated with the total complement of equipment, software, services, facilities, and integrated logistics support that are necessary to deliver and maintain the aircraft, through the cost for the common WBS elements. WBS element 1.1 Air Vehicle captures the cost of the product, while WBS elements 1.3 through 1.11 capture the cost of the "common elements".
1.1		X				Air Vehicle	The air vehicle element includes design, production, material and equipment procurements including associated vendor design/development efforts to provide for a functionally integrated air vehicle including installation of engines and avionics and all contractor
1.1.1			X			Airframe	The airframe includes the design, production, and equipment procurements including vendor design to provide the fuselage, canopy assembly, and access doors. The makeup of the air frame is comprised of steel and composite metals including aluminum alloys. This element includes the basic structure including the wings, fuselage, empennage, and nacelle.
1.1.2			X			Propulsion	The propulsion system incorporates the X-5231 engine. The engine is started by firing the initiator by command by the Missile Control Unit. The initiator is connected to the engine start cartridge and the igniter cartridge. The start cartridge produces high pressure gasses which impinge on a turbine, thereby spinning the engine up to starting speed.
1.1.3			X			Vehicle Subsystems	The vehicle subsystems includes design, production, material and equipment procurements including associated vendor design/development efforts to provide for the Auxiliary Power Unit, Airframe Mounted Accessory Drive, Air Turbine Starter, oil cooling lines. The equipments perform engine starting on the ground, emergency starting during flight, ground checkout operations of aircraft accessories, and power takeoff for hydraulic pumps and electrical generator system and fuel motive flow pumps.
1.1.4			X			Avionics	The avionics includes the X-1PY radar, radar altimeter, direction finding set, doppler compass, computer. The contractor is procuring this item from a supplier, and is also completing tests upon delivery.
1.1.5			X			Armament/Weapons Delivery	This WBS element is not applicable to this contract.
1.1.6			X			Auxiliary Equipment	This WBS element is not applicable to this contract.
1.1.7			X			Furnishings and Equipment	This WBS element is not applicable to this contract.
1.1.8			X			Air Vehicle Software	This WBS element is not applicable to this contract.
1.1.9			X			Air Vehicle Integration, Assembly, Test, and Checkout	The air vehicle integration, assembly, test and checkout is conducted by the contractor at the contractor's site. It includes load analysis, stress analysis, and maintenance effort. Also included is the joining and installation of all third level WBS elements into the air vehicle, as well as final acceptance testing. All work is being conducted by the contractor at the contractor's facilities.
1.2		X				Systems Engineering	This WBS element is not applicable to this contract.
1.3		X				Program Management	Program management includes the contractor's efforts to perform tasks required for planning and control of program schedules, cost and technical performance including WBS maintenance, work authorizations, budgeting and data reporting. Also included is management and maintenance of the requirements database.
1.4		X				System Test and Evaluation	This WBS element is not applicable to this contract.
1.5		X				Training	This WBS element is not applicable to this contract.
1.6		X				Data	This WBS element is not applicable to this contract.
1.7		X				Peculiar Support Equipment	This WBS element is not applicable to this contract.
1.8		X				Common Support Equipment	This WBS element is not applicable to this contract.
1.9		X				Operational/Site Activation	This WBS element is not applicable to this contract.
1.10		X				Industrial Facilities	This WBS element is not applicable to this contract.
1.11		X				Initial Spares & Repair Parts	This WBS element is not applicable to this contract.

DD 1921: Cost Data Summary Report

Major Takeaways

- › Costs and units by WBS
- › Reporting Contractor Profit/Loss or Fee

SECURITY CLASSIFICATION		Unclassified		COST DATA SUMMARY REPORT										Form Approved OMB No. 0704-0188	
<p>The public reporting burden for this collection of information is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Executive Service Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.</p> <p>PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ORGANIZATION.</p>															
1. MAJOR PROGRAM NAME		P-49 - Phoenix Fighter		2. PRIME MISSION PRODUCT		P-49 - Phoenix Fighter		3. REPORTING ORGANIZATION TYPE		PRIME / ASSOCIATE CONTRACTOR		4. NAME/ADDRESS (Include ZIP Code)		5. APPROVED PLAN NUMBER	
b. PHASE/STAGE		Pre-A		b. PRIME MISSION PRODUCT		P-49 - Phoenix Fighter		c. REPORTING ORGANIZATION TYPE		PRIME / ASSOCIATE CONTRACTOR		d. NAME/ADDRESS (Include ZIP Code)		e. APPROVED PLAN NUMBER	
6. CUSTOMER (Direct-reporting subcontractor use only)		7. CONTRACT TYPE		8. CONTRACT PRICE		9. CONTRACT CEILING		10. TYPE ACTION		11. PERIOD OF PERFORMANCE		12. APPROPRIATION		13. REPORT CYCLE	
a. START DATE (YYYYMMDD)		b. END DATE (YYYYMMDD)		c. CONTRACT PRICE		d. CONTRACT CEILING		e. TYPE ACTION		f. PERIOD OF PERFORMANCE		g. APPROPRIATION		h. REPORT CYCLE	
20150601		20181230		\$867,992.5				a. CONTRACT NO.		b. LATEST MODIFICATION		c. SOLICITATION NO.		d. NAME	
								X000006-13-C-0019		P00421		N/A		Phoenix Fighter	
14. SUBMISSION NUMBER		15. RESUBMISSION NUMBER		16. REPORT AS OF (YYYYMMDD)		17. NAME (Last, First, Middle Initial)		18. DEPARTMENT		19. TELEPHONE NUMBER (Include Area Code)		20. EMAIL ADDRESS		21. DATE PREPARED (YYYYMMDD)	
2		0		20160630		Bellows, Drew R		Finance		(310) 555-0559		andrew_bellows@navair.mil		20160814	
WBS ELEMENT CODE		WBS REPORTING ELEMENTS		NUMBER OF UNITS TO DATE		COSTS INCURRED TO DATE (thousands of U.S. Dollars)		NUMBER OF UNITS AT COMPLETION		COSTS INCURRED AT COMPLETION (thousands of U.S. Dollars)					
A		B		C		D E F		G		H I J					
						NONRECURRING RECURRING TOTAL				NONRECURRING RECURRING TOTAL					
1.0		P-49 - Phoenix Fighter		10.0		\$998,202.0 \$998,161.9 \$998,161.9		10.0		\$998,161.9 \$998,161.9 \$998,161.9					
1.1		Air Vehicle		10.0		\$536,196.6 \$536,196.6 \$536,196.6		10.0		\$536,196.6 \$536,196.6 \$536,196.6					
1.1.1		Airframe		10.0		\$4,072.6 \$154,155.7 \$158,228.3		10.0		\$4,072.6 \$154,155.7 \$158,228.3					
1.1.1.1		Airframe Integration, Assembly, Test, and Checkout		10.0		\$40.7 \$5,092.1 \$5,132.8		10.0		\$40.7 \$5,092.1 \$5,132.8					
1.1.1.2		Fuselage		10.0		\$4,025.5 \$99,597.2 \$103,612.7		10.0		\$4,025.5 \$99,597.2 \$103,612.7					
1.1.1.2.1		Forward Fuselage		10.0		\$1,355.1 \$44,255.2 \$45,610.3		10.0		\$1,355.1 \$44,255.2 \$45,610.3					
1.1.1.2.2		Center Fuselage		10.0		\$1,677.3 \$35,124.2 \$36,801.5		10.0		\$1,677.3 \$35,124.2 \$36,801.5					
1.1.1.2.3		Aft Fuselage		10.0		\$963.1 \$20,207.8 \$21,201.0		10.0		\$963.1 \$20,207.8 \$21,201.0					
1.1.1.3		Wing		10.0		\$35,021.5 \$35,021.5 \$35,021.5		10.0		\$35,021.5 \$35,021.5 \$35,021.5					
1.1.1.4		Empennage		10.0		\$14,502.0 \$14,495.6 \$14,495.6		10.0		\$14,502.0 \$14,495.6 \$14,495.6					
1.1.1.5		Nacelle		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.1.2		Propulsion (P-429 Engine)		10.0		\$22,587.0 \$22,587.0 \$22,587.0		10.0		\$22,587.0 \$22,587.0 \$22,587.0					
1.1.3		Vehicle Subsystems		10.0		\$2,110.2 \$2,110.2 \$2,110.2		10.0		\$2,110.2 \$2,110.2 \$2,110.2					
1.1.3.1		Vehicle Subsystem Integration, Assembly, Test, and Checkout		10.0		\$2,110.2 \$2,110.2 \$2,110.2		10.0		\$2,110.2 \$2,110.2 \$2,110.2					
1.1.3.2		Flight Control Subsystem		10.0		\$4,025.1 \$4,025.1 \$4,025.1		10.0		\$4,025.1 \$4,025.1 \$4,025.1					
1.1.3.3		Auxiliary Power Subsystem		10.0		\$5,048.6 \$5,048.6 \$5,048.6		10.0		\$5,048.6 \$5,048.6 \$5,048.6					
1.1.3.4		Hydraulic Subsystem		10.0		\$3,599.7 \$3,599.7 \$3,599.7		10.0		\$3,599.7 \$3,599.7 \$3,599.7					
1.1.3.5		Electrical Subsystem		10.0		\$9,486.5 \$9,486.5 \$9,486.5		10.0		\$9,486.5 \$9,486.5 \$9,486.5					
1.1.3.6		Crew Station Subsystem		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.1.3.7		Environmental Control Subsystem		10.0		\$12,120.8 \$12,120.8 \$12,120.8		10.0		\$12,120.8 \$12,120.8 \$12,120.8					
1.1.3.8		Fuel Subsystem		10.0		\$8,049.5 \$8,049.5 \$8,049.5		10.0		\$8,049.5 \$8,049.5 \$8,049.5					
1.1.3.9		Landing Gear		10.0		\$14,204.8 \$14,204.8 \$14,204.8		10.0		\$14,204.8 \$14,204.8 \$14,204.8					
1.1.3.10		Roster Group		10.0		\$3,905.0 \$3,905.0 \$3,905.0		10.0		\$3,905.0 \$3,905.0 \$3,905.0					
1.1.3.11		Drive Group		10.0		\$9,573.0 \$9,573.0 \$9,573.0		10.0		\$9,573.0 \$9,573.0 \$9,573.0					
1.1.3.12		Vehicle Subsystem Software		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.1.4		Avionics		10.0		\$249,416.5 \$249,416.5 \$249,416.5		10.0		\$249,416.5 \$249,416.5 \$249,416.5					
1.1.4.1		Avionics Integration, Assembly, Test, and Checkout		10.0		\$4,536.1 \$4,536.1 \$4,536.1		10.0		\$4,536.1 \$4,536.1 \$4,536.1					
1.1.4.2		Communication/Identification		10.0		\$55,786.5 \$55,786.5 \$55,786.5		10.0		\$55,786.5 \$55,786.5 \$55,786.5					
1.1.4.3		Navigation/Guidance		10.0		\$22,579.9 \$22,579.9 \$22,579.9		10.0		\$22,579.9 \$22,579.9 \$22,579.9					
1.1.4.4		Mission Computer/Processing		10.0		\$10,052.0 \$10,052.0 \$10,052.0		10.0		\$10,052.0 \$10,052.0 \$10,052.0					
1.1.4.5		Fire Control (AN/AAX-1 Radar)		10.0		\$113,294.9 \$113,294.9 \$113,294.9		10.0		\$113,294.9 \$113,294.9 \$113,294.9					
1.1.4.6		Data Display and Controls		10.0		\$11,453.9 \$11,453.9 \$11,453.9		10.0		\$11,453.9 \$11,453.9 \$11,453.9					
1.1.4.7		Survivability		10.0		\$5,205.8 \$5,205.8 \$5,205.8		10.0		\$5,205.8 \$5,205.8 \$5,205.8					
1.1.4.8		Reconnaissance		10.0		\$15,982.8 \$15,982.8 \$15,982.8		10.0		\$15,982.8 \$15,982.8 \$15,982.8					
1.1.4.9		Automatic Flight Control		10.0		\$10,524.6 \$10,524.6 \$10,524.6		10.0		\$10,524.6 \$10,524.6 \$10,524.6					
1.1.4.10		Health Monitoring System		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.1.4.11		Stores Management		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.1.4.12		Avionics Software		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.1.5		Armament/Weapons Delivery		10.0		\$26,953.8 \$26,953.8 \$26,953.8		10.0		\$26,953.8 \$26,953.8 \$26,953.8					
1.1.6		Auxiliary Equipment		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.1.7		Furnishings and Equipment		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.1.8		Air Vehicle Software		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.1.9		Air Vehicle Integration, Assembly, Test, and Checkout		10.0		\$6,127.7 \$6,127.7 \$6,127.7		10.0		\$6,127.7 \$6,127.7 \$6,127.7					
1.2		Systems Engineering		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.3		Program Management		0.0		\$58,740.5 \$58,740.5 \$58,740.5		0.0		\$58,740.5 \$58,740.5 \$58,740.5					
1.4		System Test and Evaluation		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.5		Training		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.6		Data		0.0		\$13.3 \$13.3 \$13.3		0.0		\$13.3 \$13.3 \$13.3					
1.7		Peculiar Support Equipment		0.0		\$23,465.6 \$23,465.6 \$23,465.6		0.0		\$23,465.6 \$23,465.6 \$23,465.6					
1.7.1		Test and Measurement Equipment		0.0		\$10,214.0 \$10,214.0 \$10,214.0		0.0		\$10,214.0 \$10,214.0 \$10,214.0					
1.7.2		Support and Handling Equipment		0.0		\$13,251.6 \$13,251.6 \$13,251.6		0.0		\$13,251.6 \$13,251.6 \$13,251.6					
1.8		Common Support Equipment		0.0		\$1.2 \$1.2 \$1.2		0.0		\$1.2 \$1.2 \$1.2					
1.9		Operational/Site Activation		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.10		Industrial Facilities		0.0		\$0.0 \$0.0 \$0.0		0.0		\$0.0 \$0.0 \$0.0					
1.11		Initial Spares and Repair Parts		0.0		\$56,202.2 \$56,202.2 \$56,202.2		0.0		\$56,202.2 \$56,202.2 \$56,202.2					
		Subtotal Cost				\$998,161.9				\$998,161.9					
		Reporting Contractor G&A				\$62,057.0				\$62,057.0					
		Reporting Contractor Undistributed Budget				\$0.0				\$0.0					
		Reporting Contractor Management Reserve				\$6,124.4				\$6,124.4					
		Reporting Contractor FCCM				\$766,343.3				\$766,343.3					
		Total Cost				\$1,832,646.6				\$1,832,646.6					
		Reporting Contractor Profit/Loss or Fee				\$70,548.5				\$70,548.5					
		Total Price				\$1,903,195.1				\$1,903,195.1					
22. REMARKS															
The data contained in this report is for 10 air vehicles built in Lot 9, which began on June 1, 2015. The final delivery for Lot 9 was made on June 30, 2016.															

DD 1921-1: Functional Cost-Hour Report



Major Takeaways

› Enables three types of analysis:

› Labor vs material breakout

› Hours vs dollars

› Engineering vs Manufacturing

SECURITY CLASSIFICATION		Unclassified																			
FUNCTIONAL COST-HOUR REPORT																		Form Approved OMB No. 0704-0188			
The public reporting burden for this collection of information is estimated to average 16 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ORGANIZATION.																					
1. MAJOR PROGRAM		a. NAME: P-49 - Phoenix Fighter		2. PRIME MISSION		b. PHASE/MILESTONE		3. REPORTING ORGANIZATION TYPE		c. CONTRACT NO.: XXXXXX-13-C-0019		d. NAME: Phoenix Fighter		e. TASK ORDER/DELIVERY ORDER/LOT NO.: Lot 9		f. DIVISION		g. APPROVED PLAN NUMBER			
Pre-A		B		C-FRP		C-LRIP		PRIME / ASSOCIATE CONTRACTOR		DIRECT-REPORTING SUBCONTRACTOR		GOVERNMENT		Vandalay Industries 352 Stork Rd. Los Angeles, CA 90049		Integrated Systems 325 Stork Rd. Los Angeles, CA 90049		N-12-X-C1			
6. CUSTOMER (Direct-Reporting Subcontractor Use Only)										7. TYPE ACTION											
a. START DATE (YYYYMMDD): 20150601										b. LATEST MODIFICATION: P00421											
b. END DATE (YYYYMMDD): 20181230										c. SOLICITATION NO.: N/A											
8. PERIOD OF PERFORMANCE										9. REPORT CYCLE											
a. START DATE (YYYYMMDD): 20150601										INITIAL											
b. END DATE (YYYYMMDD): 20181230										INTERIM											
13. NAME (Last, First, Middle Initial)										14. DEPARTMENT											
Bellows, Drew R										Finance											
18. WBS ELEMENT CODE										19. WBS REPORTING ELEMENT											
1.0										P-49 - Phoenix Fighter											
20. NUMBER OF UNITS										21. APPROPRIATION											
a. TO DATE										b. AT COMPLETION											
10.0										10.0											
FUNCTIONAL DATA ELEMENTS										COSTS AND HOURS INCURRED TO DATE (thousands of U.S. Dollars or thousands of hours)											
										COSTS AND HOURS INCURRED AT COMPLETION (thousands of U.S. Dollars or thousands of hours)											
										A. NONRECURRING											
										B. RECURRING											
										C. TOTAL											
										D. NONRECURRING											
										E. RECURRING											
										F. TOTAL											
ENGINEERING																					
(1) DIRECT ENGINEERING LABOR HOURS																					
7																					
(2) DIRECT ENGINEERING LABOR DOLLARS																					
\$398.4																					
(3) ENGINEERING OVERHEAD DOLLARS																					
\$245.0																					
(4) TOTAL ENGINEERING DOLLARS																					
\$643.4																					
MANUFACTURING OPERATIONS																					
(5) DIRECT TOOLING LABOR HOURS																					
0																					
(6) DIRECT TOOLING LABOR DOLLARS																					
\$1.7																					
(7) DIRECT TOOLING & EQUIPMENT DOLLARS																					
\$0.0																					
(8) DIRECT QUALITY CONTROL LABOR HOURS																					
1.2																					
(9) DIRECT QUALITY CONTROL LABOR DOLLARS																					
\$33.5																					
(10) DIRECT MANUFACTURING LABOR HOURS																					
90.2																					
(11) DIRECT MANUFACTURING LABOR DOLLARS																					
\$3,456.0																					
(12) MANUFACTURING OPERATIONS OVERHEAD DOLLARS (Including Tooling and Quality Control)																					
\$325.2																					
(13) TOTAL MANUFACTURING OPERATIONS DOLLARS (Sum of rows 6, 7, 9, 11, and 12)																					
\$3,816.4																					
MATERIALS																					
(14) RAW MATERIAL DOLLARS																					
\$24.2																					
(15) PURCHASED PARTS DOLLARS																					
\$45.2																					
(16) PURCHASED EQUIPMENT DOLLARS																					
\$102.5																					
(17) MATERIAL HANDLING OVERHEAD DOLLARS																					
\$0.0																					
(18) TOTAL DIRECT-REPORTING SUBCONTRACTOR DOLLARS																					
\$0.0																					
(19) TOTAL MATERIAL DOLLARS																					
\$171.9																					
OTHER COSTS																					
(20) OTHER COSTS NOT SHOWN ELSEWHERE (Specify in Remarks)																					
\$328.2																					
SUMMARY																					
(21) TOTAL COST (Direct and Overhead)																					
\$4,959.9																					
22. REMARKS																					
Costs in Line 16 (Purchased Equipment Dollars) are greater to date than at completion due to a pending credit for overbilling on a purchase order.																					
Costs in Line 18 (Total Direct Reporting Subcontractor Dollars) are for The Aircraft Electronics Group (AEG), Akron, Ohio (\$100,426,500 to date, \$101,021,500 at completion)																					
DD FORM 1921-1, MAY 2011																					
SECURITY CLASSIFICATION																		Unclassified			



- › Format the same as 1921-1, with sustainment functional categories
- › Touch vs support labor analysis

SECURITY CLASSIFICATION						Unclassified					
SUSTAINMENT FUNCTIONAL COST-HOUR REPORT										OMB No. 0704-0188	
The public reporting burden for this collection of information is estimated to average 16 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Executive Services Directorate, Directives Division, 4800 Mark Center Drive, East Tower, Suite 02G09, Alexandria, VA 22350-3100 (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ORGANIZATION.											
1. MAJOR PROGRAM a. NAME:											
b. PHASE/MILESTONE		2. PRIME MISSION PRODUCT		3. REPORTING ORGANIZATION TYPE		4. NAME/ADDRESS (Include Zip Code)				5. APPROVED PLAN NUMBER	
<input type="checkbox"/> Pre-A <input type="checkbox"/> A		<input type="checkbox"/> B <input type="checkbox"/> C-LRP <input type="checkbox"/> O&S		<input type="checkbox"/> DIRECT-REPORTING SUBCONTRACTOR <input type="checkbox"/> PRIME / ASSOCIATE CONTRACTOR		<input type="checkbox"/> GOVERNMENT		a. PERFORMING ORGANIZATION		b. DIVISION	
6. CUSTOMER (Direct-Reporting Subcontractor Use Only)						7. TYPE ACTION					
						a. CONTRACT NO.: b. LATEST MODIFICATION: c. SOLICITATION NO.: d. NAME: e. TASK ORDER/DELIVERY ORDER/LOT NO.:					
8. PERIOD OF PERFORMANCE						9. REPORT CYCLE		10. SUBMISSION NUMBER		11. RESUBMISSION NUMBER	
a. START DATE (YYYYMMDD):						<input type="checkbox"/> INITIAL <input type="checkbox"/> INTERIM <input type="checkbox"/> FINAL				12. REPORT AS OF (YYYYMMDD)	
b. END DATE (YYYYMMDD):											
13. NAME (Last, First, Middle Initial)				14. DEPARTMENT				15. TELEPHONE NO. (Include Area Code)			
								16. EMAIL ADDRESS			
17. DATE PREPARED (YYYYMMDD)											
18. WBS ELEMENT CODE				19. WBS REPORTING ELEMENT				20. NUMBER OF UNITS			
								a. TO DATE b. AT COMPLETION			
								21. APPROPRIATION			
								<input type="checkbox"/> RD&E <input type="checkbox"/> PROCUREMENT <input type="checkbox"/> O&M			
SUSTAINMENT FUNCTIONAL DATA ELEMENTS						COSTS AND HOURS INCURRED TO DATE (thousands of U.S. Dollars or thousands of hours)					
						COSTS AND HOURS INCURRED AT COMPLETION (thousands of U.S. Dollars or thousands of hours)					
						A. NONRECURRING		B. RECURRING		C. TOTAL	
						D. NONRECURRING		E. RECURRING		F. TOTAL	
ENGINEERING											
(1) DIRECT ENGINEERING LABOR HOURS											
(2) DIRECT ENGINEERING LABOR DOLLARS											
(3) ENGINEERING OVERHEAD DOLLARS											
(4) TOTAL ENGINEERING DOLLARS											
PROGRAM MANAGEMENT											
(5) DIRECT PROGRAM MANAGEMENT LABOR HOURS											
(6) DIRECT PROGRAM MANAGEMENT LABOR DOLLARS											
(7) PROGRAM MANAGEMENT OVERHEAD DOLLARS											
(8) TOTAL PROGRAM MANAGEMENT DOLLARS											
MAINTENANCE OPERATIONS											
(9) TOUCH MAINTENANCE LABOR HOURS											
(10) TOUCH MAINTENANCE LABOR DOLLARS											
(11) TOUCH MAINTENANCE OVERHEAD DOLLARS											
(12) SUPPORT MAINTENANCE LABOR HOURS											
(13) SUPPORT MAINTENANCE LABOR DOLLARS											
(14) SUPPORT MAINTENANCE OVERHEAD DOLLARS											
(15) TOTAL MAINTENANCE OPERATIONS DOLLARS											
MATERIALS											
(16) RAW MATERIAL DOLLARS											
(17) PURCHASED PARTS DOLLARS											
(18) PURCHASED EQUIPMENT DOLLARS											
(19) MATERIAL HANDLING/OVERHEAD DOLLARS											
(20) TOTAL DIRECT-REPORTING SUBCONTRACTOR DOLLARS											
(21) TOTAL MATERIAL DOLLARS											
OTHER COSTS											
(22) OTHER COSTS NOT SHOWN ELSEWHERE (Specify in Remarks)											
SUMMARY											
(23) TOTAL COST (Direct and Overhead)											
22. REMARKS											
DD FORM 1921-5, DEC 2015						SECURITY CLASSIFICATION					
						Unclassified					

DD 1921-2: Progress Curve Report



Major Takeaways

- Reporting by unit, lot, or sub-lot allows learning curve analysis

SECURITY CLASSIFICATION		Unclassified	
PROGRESS CURVE REPORT			
Form Approved OMB No. 0704-0188			
The public reporting burden for this collection of information is estimated to average 16 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ORGANIZATION.			
1. MAJOR PROGRAM		a. NAME: P-49 - Phoenix Fighter	
b. PHASE/MILESTONE		2. PRIME MISSION PRODUCT	
<input type="checkbox"/> Pre-A <input type="checkbox"/> B <input checked="" type="checkbox"/> C-FRP <input type="checkbox"/> O&S		P-49 - Phoenix Fighter	
<input type="checkbox"/> A <input type="checkbox"/> C-LRP			
5. APPROVED PLAN NUMBER		6. CUSTOMER (Direct-Reporting Subcontractor Use Only)	
N-12-X-C1			
8. PERIOD OF PERFORMANCE		7. TYPE ACTION	
a. START DATE (YYYYMMDD): 20150601		a. CONTRACT NO.: XXXXXX-13-C-0019	
b. END DATE (YYYYMMDD): 20181230		b. LATEST MODIFICATION P00421	
		c. SOLICITATION NO.: N/A	
		d. NAME: Phoenix Fighter	
		e. TASK ORDER/DELIVERY ORDER/LOT NO.: Lot 9	
		9. REPORT CYCLE	
		<input type="checkbox"/> INITIAL	
		<input type="checkbox"/> INTERIM	
		<input checked="" type="checkbox"/> FINAL	
		10. SUBMISSION NUMBER	
		2	
		11. RESUBMISSION NUMBER	
		0	
		12. REPORT AS OF (YYYYMMDD)	
		20160630	
13. NAME (Last, First, Middle Initial)		14. DEPARTMENT	
Bellows, Drew R		Finance	
		15. TELEPHONE NO. (Include Area Code)	
		(310) 555-0559	
		16. E-MAIL ADDRESS	
		andrew_bellows@vandalayindustries.com	
		17. DATE PREPARED (YYYYMMDD)	
		20160814	
18. WBS ELEMENT CODE		19. WBS REPORTING ELEMENT	
1.0		P-49 - Phoenix Fighter	
		20. UNITS/LOTS COMPLETED	
		<input type="checkbox"/> UNIT TOTAL	
		<input checked="" type="checkbox"/> LOT TOTAL	
		21. APPROPRIATION	
		<input type="checkbox"/> RDT&E	
		<input checked="" type="checkbox"/> PROCUREMENT	
		<input type="checkbox"/> O&M	
DATA ELEMENTS		A. COMPLETED UNITS/LOTS (thousands of U.S. Dollars or thousands of hours)	
		A1 A2 A3 A4	
(1) MODEL AND SERIES			
(2) FIRST UNIT			
(3) LAST UNIT			
(4) CONCURRENT UNITS/LOTS			
CHARACTERISTICS			
(5a) Weight			
(5b) Speed			
(5c) Power			
ENGINEERING (RECURRING ONLY)			
(6) DIRECT ENGINEERING LABOR HOURS		1128.6	
(7) DIRECT ENGINEERING LABOR DOLLARS		\$70,403.0	
MANUFACTURING OPERATIONS (RECURRING ONLY)			
(8) DIRECT TOOLING LABOR HOURS		247.7	
(9) DIRECT TOOLING LABOR DOLLARS		\$8,179.0	
(10) DIRECT TOOLING & EQUIPMENT DOLLARS		\$4,020.8	
(11) DIRECT QUALITY CONTROL LABOR HOURS		347.5	
(12) DIRECT QUALITY CONTROL LABOR DOLLARS		\$10,838.4	
(13) DIRECT MANUFACTURING LABOR HOURS		\$4,124.5	
(14) DIRECT MANUFACTURING LABOR DOLLARS		\$155,518.4	
(15) TOTAL DIRECT MANUFACTURING OPERATIONS DOLLARS (Sum of rows 9,10,12, & 14)		\$178,556.6	
MATERIALS (RECURRING ONLY)			
(16) RAW MATERIALS DOLLARS		\$10,201.9	
(17) PURCHASED PARTS DOLLARS		\$30,212.0	
(18) PURCHASED EQUIPMENT DOLLARS		\$57,854.4	
(19) TOTAL DIRECT-REPORTING SUBCONTRACTOR DOLLARS			
(20) TOTAL DIRECT MATERIAL DOLLARS		\$98,268.3	
OTHER COSTS (RECURRING ONLY)			
(21) OTHER DIRECT COSTS NOT SHOWN ELSEWHERE (Specify in Remarks)		\$25,012.0	
SUMMARY (RECURRING ONLY)			
(22) TOTAL DIRECT COST		\$372,239.9	
22. REMARKS			

Major Takeaways

- › Direct and Indirect Costs
- › Plant utilization capacity to analyze overhead rates

SECURITY CLASSIFICATION _____

CONTRACTOR BUSINESS DATA REPORT															Form Approved OMB No. 0704-0188		
The public reporting burden for this collection of information is estimated to average 30 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Executive Service Directorate, Information Management Division, 1155 Defense Pentagon, Washington, DC 20301-1155 (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ORGANIZATION.																	
1. CONTRACTOR NAME/ADDRESS (Include Zip Code)					2. FPR UNIT		3. IMPLEMENTING CONTRACT NUMBER			4. DATA PERIOD (X one) Prior Year Current Year Future Year		5. FISCAL YEAR (YYYY)		6. DATES IN FISCAL YEAR (YYYYMMDD) Start Date: End Date:			
7. PREPARER'S NAME (Last, First, Middle Initial)					8. DEPARTMENT			9. TELEPHONE NO. (Include Area Code)			10. EMAIL ADDRESS		11. DATE PREPARED (YYYYMMDD)				
Overhead Accumulation, Distribution, and Application																	
DIRECT COST BY PROGRAM																	
					DIRECT: COST / HOURS / MANPOWER (Report dollars and hours in thousands)												
					Engineering			Manufacturing Operations			Materials		Other				
					Workers	Dollars	Hours	Workers	Dollars	Hours	Dollars	Workers	Dollars	Hours			
					e	f	g	h	i	j	k	l	m	n			
S E C T I O N A	1. _____																
	2. _____																
	3. _____																
	4. _____																
	5. _____																
	6. _____																
	7. _____																
	8. _____																
	9. _____																
	10. _____																
11. Other DoD Effort																	
12. Other Government Effort																	
13. Commercial Effort																	
14. Total Direct Cost and Hours Base																	
a. Total Direct Workers																	
					0			0			0						
INDIRECT COST CATEGORY																	
					INDIRECT: COST / HOURS / MANPOWER (Report dollars and hours in thousands)												
					Engineering			Manufacturing Operations			Materials		Other			G&A	
					Workers	Dollars	Hours	Workers	Dollars	Hours	Dollars	Workers	Dollars	Hours	Dollars	Hours	
					o	p	q	r	s	t	u	v	w	x	y	z	
S E C T I O N B	15. Indirect Labor																
	16. Employee Benefits																
	17. Payroll Taxes																
	18. Employment																
	19. Communication/Travel																
	20. Production Related																
	21. Facilities-Building/Land																
	22. Facilities-Furniture/Equipment																
	23. Administration																
	24. Future Business																
25. Other Miscellaneous																	
26. Credits																	
27. Total Indirect Cost and Hours																	
28. Total G&A Cost and Hours																	
29. Indirect/Direct Cost Rate																	
30. G&A Rate/(Direct + Indirect)																	

DD FORM 1921-3, MAY 2011

SECURITY CLASSIFICATION _____

Page 1 of 2

Software Development Report



Major Takeaways

- › Part 1: Release Level Technical Content, CSCI Software Size Schedule

- › Part 2: Reports the to-date SW maintenance efforts for each in progress and completed release(s), and total maintenance activities

SOFTWARE DEVELOPMENT REPORT, FORMAT 1 (DD FORM 1921-D): Part 1 Software Development Technical Data, Release Level													
Release ID		1		Release Name				Release 1					
Release Start Date				Release End Date									
Software Requirements Count Definition													
External Interface Requirements Count Definition													
Hours Per Staff Month				Computed ?				Total Labor Hours		Total Staff			
Product Quality Reporting Definition													
DEVELOPMENT ORGANIZATION				SOFTWARE PROCESS MATURITY				LEAD EVALUATOR					
				CERTIFICATION									
				Product Size Reporting									
Contractor-Defined Software Development Activities		X	Contractor-Defined Activity X		Definition		Software Requirements Count						
			ISO 12207 Processes included...				Total		Inherited Requirements		Added/New Requirements		
		Y	Contractor-Defined Activity Y		Definition				Deleted Requirements		Deferred Requirements		
			ISO 12207 Processes included...				Certification and Accreditation Rqts		Security Requirements		Safety Requirements		
		Z	Contractor-Defined Activity Z		Definition		Software Requirements Comments						
			ISO 12207 Processes included...				External Interface Requirements Count						
			etc.		Definition		Total		Inherited Requirements		Added/New Requirements		
			ISO 12207 Processes included...						Deleted Requirements		Deferred Requirements		
								Certification and Accreditation Rqts		Security Requirements		Safety Requirements	
								External Interface Requirements Comments					
SLOC-Based Software Size													
Primary Language (L1)													
Secondary Language (L2)													
ACTUAL COUNTS TO DATE (Interim and Final Reports only)							L1	L2	Other	PRIME ONLY			
AMOUNT OF DELIVERED CODE DEVELOPED NEW							0	0	0	HUMAN GENERATED			
							0	0	0	AUTO GENERATED			
AMOUNT OF DELIVERED CODE REUSED FROM EXTERNAL SOURCE (i.e., NOT CARRYOVER FROM PREVIOUS RELEASE)							0	0	0	WITH MODIFICATIONS			
							0	0	0	WITHOUT MODIFICATIONS			
AMOUNT OF DELIVERED CODE CARRYOVER (i.e., REUSED FROM PREVIOUS RELEASE)							0	0	0	WITH MODIFICATIONS			
							0	0	0	WITHOUT MODIFICATIONS			
AMOUNT OF GOV'T FURNISHED CODE							0	0	0	WITH MODIFICATIONS			
							0	0	0	WITHOUT MODIFICATIONS			
							0	0	0	WITH MODIFICATIONS			
							0	0	0	WITHOUT MODIFICATIONS			

Prime Contractor Hours			
WBS Element Code	WBS Element Name	Activity ID	Act Na
1.1.2.2.2	Propulsion Software Release 1		
1.1.2.2.2.1	Propulsion Software Release 1 CSCI 1		
1.1.2.2.2.2	Propulsion Software Release 1 CSCI 1	X	Contractor-Defi
1.1.2.2.2.3	Propulsion Software Release 1 CSCI 1	Y	Contractor-Defi
1.1.2.2.2.4	Propulsion Software Release 1 CSCI 1	Z	Contractor-Defi
1.1.2.2.2.2	Propulsion Software Release 1 CSCI 2		
1.1.2.2.2.2	Propulsion Software Release 1 CSCI 2	X	Contractor-Defi
1.1.2.2.2.2	Propulsion Software Release 1 CSCI 2	Y	Contractor-Defi
1.1.2.2.2.2	Propulsion Software Release 1 CSCI 2	Z	Contractor-Defi
1.1.2.2.2.3	Propulsion Software Release 1 CSCI 3		
1.1.2.2.2.3	Propulsion Software Release 1 CSCI 3	X	Contractor-Defi
1.1.2.2.2.3	Propulsion Software Release 1 CSCI 3	Y	Contractor-Defi
1.1.2.2.2.3	Propulsion Software Release 1 CSCI 3	Z	Contractor-Defi
1.1.2.2.3	Propulsion Software Release 2		
1.1.2.2.3.1	Propulsion Software Release 2 CSCI 1		
1.1.2.2.3.1	Propulsion Software Release 2 CSCI 1	X	Contractor-Defi
1.1.2.2.3.1	Propulsion Software Release 2 CSCI 1	Y	Contractor-Defi
1.1.2.2.3.1	Propulsion Software Release 2 CSCI 1	Z	Contractor-Defi
1.1.2.2.3.2	Propulsion Software Release 2 CSCI 2		
1.1.2.2.3.2	Propulsion Software Release 2 CSCI 2	X	Contractor-Defi

Software Maintenance Report

SRDR Webinar



Major Takeaways

- › Part 1: Technical Data SW size, context, technical parameters, descriptions, and schedule Top level and release level sections
- › Part 2: Reports the to-date SW maintenance efforts for each in progress and completed release(s), and total maintenance activities

Schedule Reporting			
Release Start Date (YYYYMMDD)		Release End Date (Y	
Schedule Reporting Comment			
Product and Maintenance Description			
Functional Description			
Software Maintenance Characterization			
Software Maintenance Process			
Operating Environment(s) (Check all that apply)			
<input type="checkbox"/>	Surface Fixed	<input type="checkbox"/>	Surface Vehicle
<input type="checkbox"/>	Surface Mobile	<input type="checkbox"/>	Air Vehicle
<input type="checkbox"/>	Surface Portable	<input type="checkbox"/>	Sea Systems
Manned vs Unmanned (check one)			
<input type="checkbox"/>	Manned	<input type="checkbox"/>	Unmanned
Application Domain(s) (Indicate percentages to all applicable domains)			
% Microcode and Firmware		% Communication	
% Signal Processing		% System Software	
% Vehicle Payload		% Process Control	
% Vehicle Control		% Scientific and Simulation	
% Other Real-Time Embedded		% Test, Measurement, and Diagnostic Equipm	
% Command and Control		% Training	

SOFTWARE MAINTENANCE REPORT, FORMAT 2 (DD FORM 1921-M): Part 2 Software Ma			
Resource Reporting			
Organization 1			
WBS Element Code	WBS Element Name	Actuals To Date (ATD)	
1.5.2.1.1	Software Change Release 1		
1.5.2.1.n	Software Change Release n		
1.4.4	Project Management		Only include Software Spe
1.4.3	Sustaining Engineering		Only include Software Spe
1.4.3.9	Certification and Accreditation		Only include Software Spe
1.5.2.2	Software License Management		
1.5.2.3	System Facilities		
1.5.2.4	Field Software Engineering		
1.5.2.5	Operational Management		

Maintenance and Repair Report

The –M Collects information related to each maintenance event such as the specific system being repaired, location where the repair activity occurred, reason for failure, day failure was identified and day repair activity was completed

Maintenance Event Report

Maintenance Event Number

System/End Item Data:

- End Item or DLR NIIN
- Serial Number
- Variant
- Oder Name

Failure Data:

- Non-Mission Capable
- Scheduled Event
- Failure Code
- Failure Code Description

Repair Data:

- Start/Completion Date
- Org/Location
- Maintenance Event Type
- WBS ID
- Labor Hours



Repair Part Report

Maintenance Event Number

Repair Action Data:

- Repair Action Code
- Repair Action Description

Repair Part Data:

- LRU or Part Name
- 881 Reference
- Reparable or Consumable
- Quantity
- LRU or Part Number
- NSN (or NIIN)
- WUC/LCN
- FWG
- Replacement Cost
- Repair Cost

The –R Identifies the LRUs and/or repair parts associated with each maintenance event

During the post award conference the CWIPT will identify the maintenance and repair elements that will be reported. A minimum set of data elements is required to use the data. Elements chosen are dependent on the scope of the CLS contract.

The –M/R is the Department of Defense (DoD) reporting requirement for collecting actual maintenance event and repair part data as part of the Cost, Software, and Data Report (CSDR) system

Initiative:

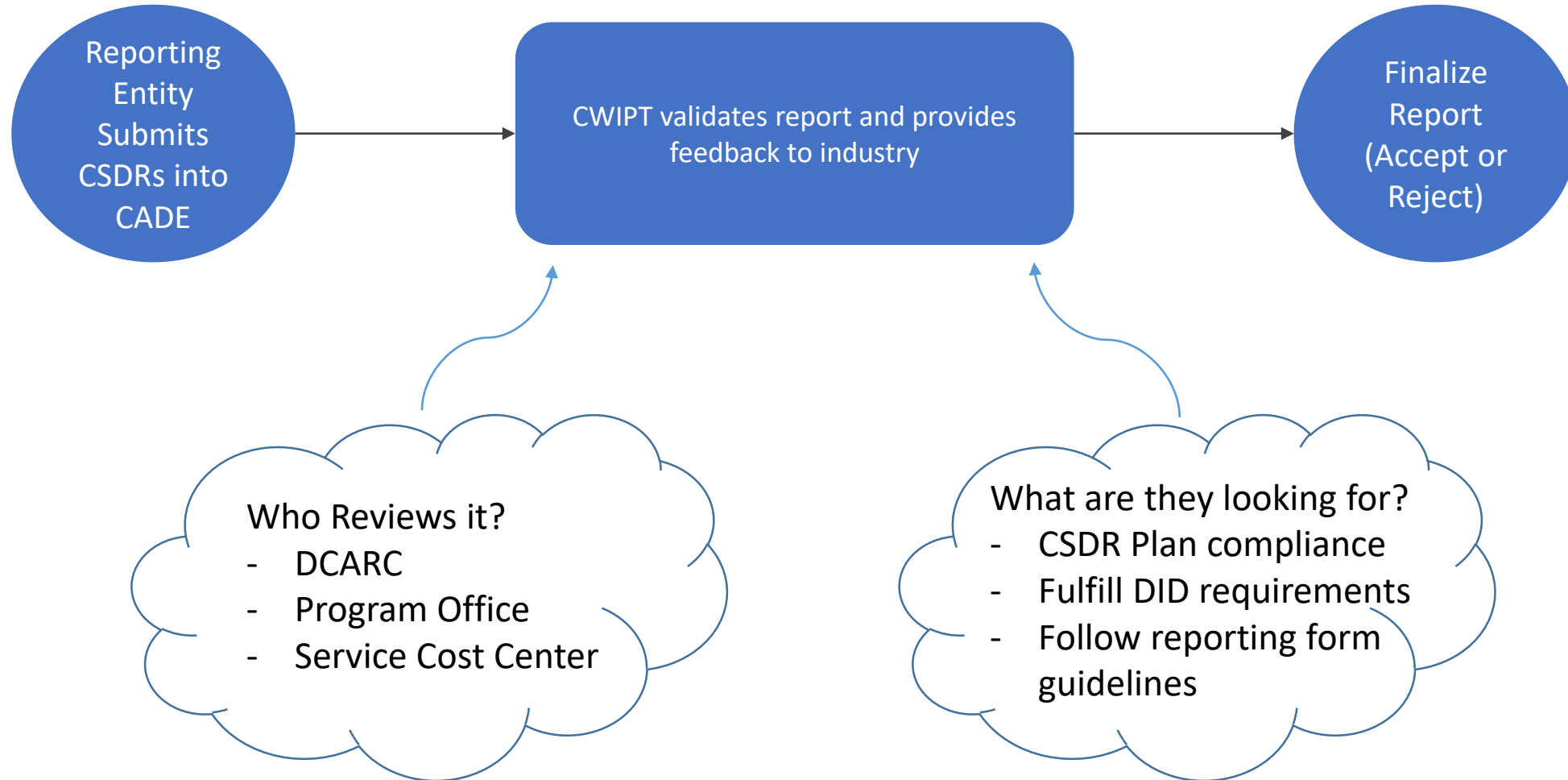
- › Provides mechanism to systematically capture Tech Data on contracts
- › Complements DoD CARD process
- › Creates a common Tech Data Vocabulary
- › Defines core set of needed parameters
- › Leverages other Tech Data on contract

Enduring Cost Analysis Need

- › Provides context to the cost data
- › Defines the Program's Technical Baseline
- › Ingredient of acquisition strategies, e.g., schedules
- › Identification and quantification of cost drivers
- › Foundation for Independent Technical Assessments
- › Supports architecture trade studies
- › Highlights areas of potential risk

TECH: Parameters by Mapping ID							
Mapping ID	Item Type	Technical Parameter Name	Group Key	Value	Unit of Measure	Unit of Measure Qualifier	Estimate/Actual
Var-A_1.1	C4ISys	Target Environment		Airborne	List		Actual
Var-B_1.1	C4ISys	Target Environment		Ground	List		Actual
Common_1.1.1	IAT&CO	Number of Electrical Connections		200	Quantity	Electrical Connections	Actual
Common_1.1.1	IAT&CO	Number of Mechanical Connections		400	Quantity	Mechanical Connections	Actual
Common_1.1.2	Heritage	New Design		50	Percent		Actual
Common_1.1.2	Heritage	Predecessor System		Excaliber	Descriptor		Actual
Common_1.1.2	PhysicalElec	Weight		500	Pounds		Estimated
Common_1.1.2	PhysicalElec	Weight - Structural		100	Pounds		Estimated
Common_1.1.2	PhysicalElec	Weight - Electronics		80	Pounds		Estimated
Common_1.1.2	PhysicalElec	Power - Maximum Consumption Rate		20	Kilowatts		Estimated
Common_1.1.2	PhysicalElec	Volume		200	Cubic Inches		Actual
Var-A_1.1.3	Heritage	New Design		90	Percent		Actual
Var-A_1.1.3	Heritage	Predecessor System		Excaliber	Descriptor		Actual
Var-A_1.1.3	ElecBox	Circuit Cards - Number of		3	Quantity		Actual
Var-A_1.1.3	ElecBox	Application Specific Integrated Circuit (ASIC) Designs		20	Quantity	ASICs	Actual
Var-A_1.1.3	ElecBox	Field Programmable Gate Array (FPGA) Designs		30	Quantity	FPGAs	Actual
Var-B_1.1.3	Heritage	New Design		50	Percent		Actual
Var-B_1.1.3	Heritage	Predecessor System		Var-A	Descriptor		Actual
Var-B_1.1.3	ElecBox	Circuit Cards - Number of		3	Quantity		Actual
Var-B_1.1.3	ElecBox	Application Specific Integrated Circuit (ASIC) Designs		15	Quantity	ASICs	Estimated
Var-B_1.1.3	ElecBox	Field Programmable Gate Array (FPGA) Designs		45	Quantity	FPGAs	Estimated
Common_1.1.4	Heritage	New Design		60	Percent		Actual
Common_1.1.4	Heritage	Predecessor System		Excaliber	Descriptor		Actual
Common_1.1.4	Antenna	Frequency Band		K band (18 to 27 GHz)	List		Actual
Common_1.1.4	Antenna	Aperture - Antenna		32	Inches		Actual
Common_1.1.4	Antenna	Number of Sub Arrays		4	Quantity	Per Antenna Face	Actual

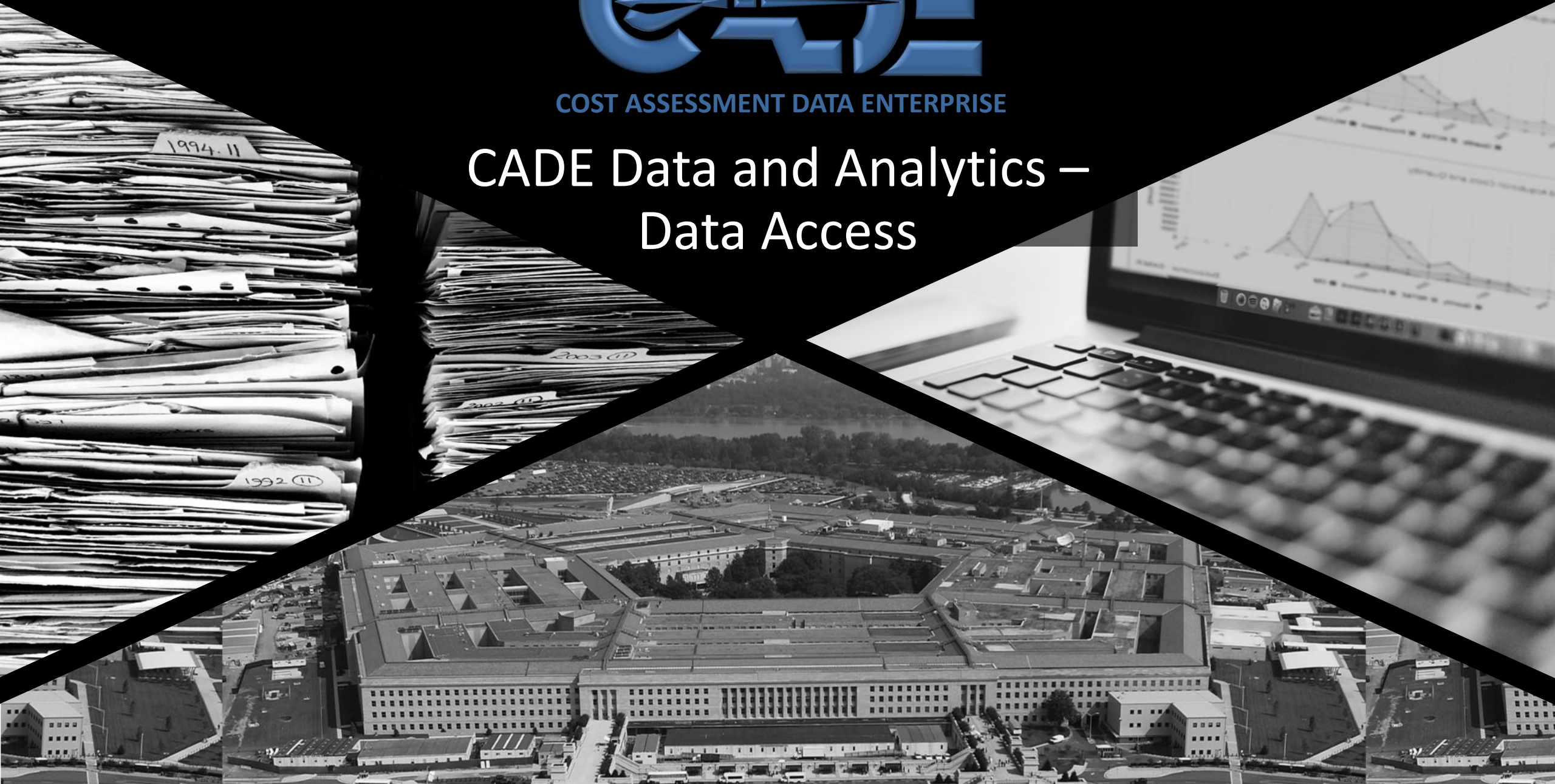
CSDR Validation Process





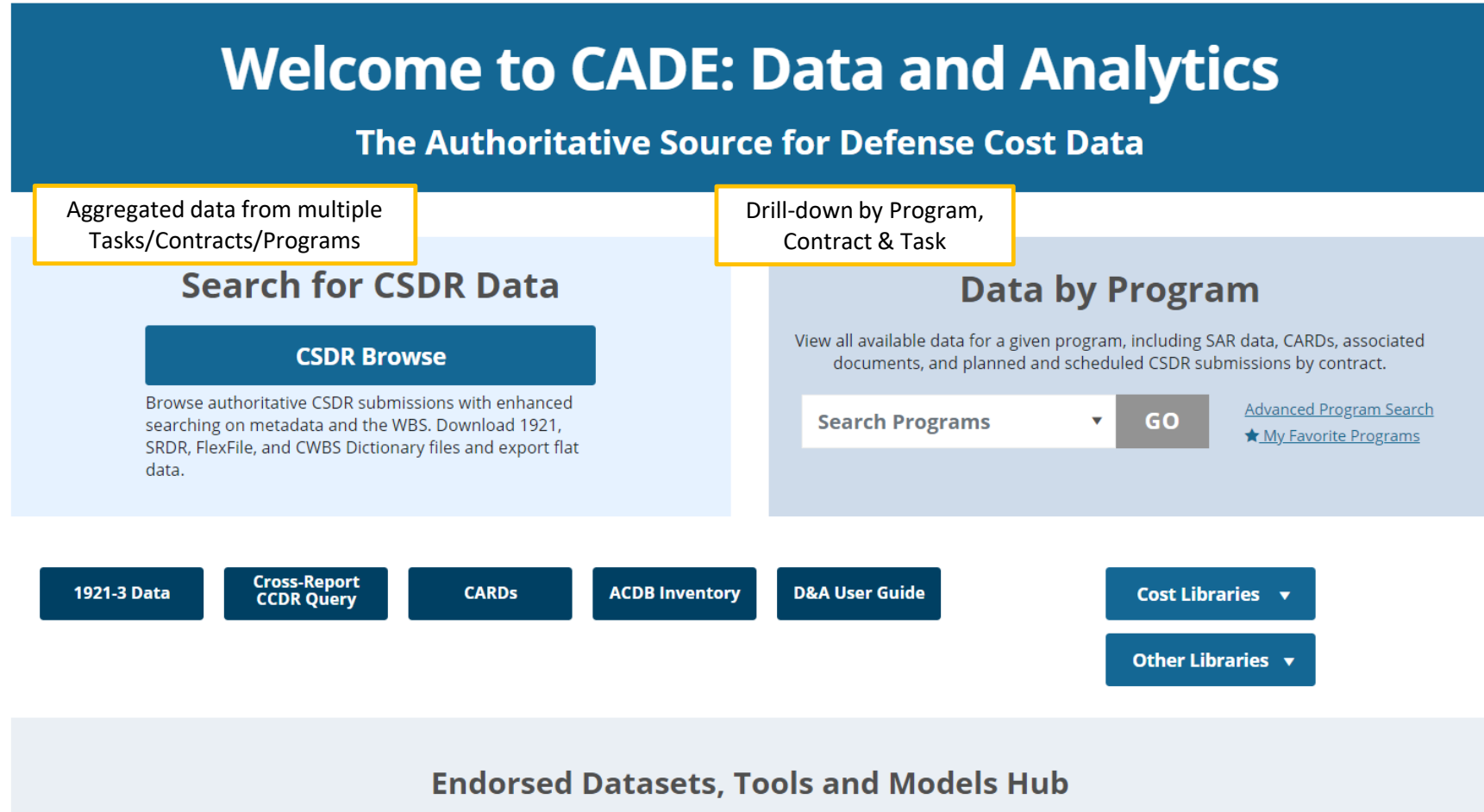
COST ASSESSMENT DATA ENTERPRISE

CADE Data and Analytics – Data Access



Data and Analytics Landing Page

- A new design for the **Data and Analytics home page** was published on 05 Dec 2018
- It is intended to better support two primary modes of accessing data
 - **Browse Data Across Programs:** Aggregate data from multiple Tasks/Contracts/Programs
 - Think “*analysis-ready flat files*”
 - **Data by Program:** Drill-down by Program, Contract, and Task
 - Think “*standard reporting formats*”



The screenshot shows the CADE Data and Analytics landing page. At the top is a blue header with the text "Welcome to CADE: Data and Analytics" and "The Authoritative Source for Defense Cost Data". Below this are two main sections: "Search for CSDR Data" and "Data by Program". The "Search for CSDR Data" section has a yellow box above it labeled "Aggregated data from multiple Tasks/Contracts/Programs" and contains a "CSDR Browse" button and a description of the data. The "Data by Program" section has a yellow box above it labeled "Drill-down by Program, Contract & Task" and contains a search bar with "Search Programs" and a "GO" button, along with links for "Advanced Program Search" and "My Favorite Programs". Below these sections is a row of buttons: "1921-3 Data", "Cross-Report CCDR Query", "CARDS", "ACDB Inventory", "D&A User Guide", "Cost Libraries", and "Other Libraries". At the bottom is a light blue footer with the text "Endorsed Datasets, Tools and Models Hub".

Welcome to CADE: Data and Analytics

The Authoritative Source for Defense Cost Data

Aggregated data from multiple Tasks/Contracts/Programs

Search for CSDR Data

CSDR Browse

Browse authoritative CSDR submissions with enhanced searching on metadata and the WBS. Download 1921, SRDR, FlexFile, and CWBS Dictionary files and export flat data.

Drill-down by Program, Contract & Task

Data by Program

View all available data for a given program, including SAR data, CARDS, associated documents, and planned and scheduled CSDR submissions by contract.

Search Programs **GO** [Advanced Program Search](#) [★ My Favorite Programs](#)

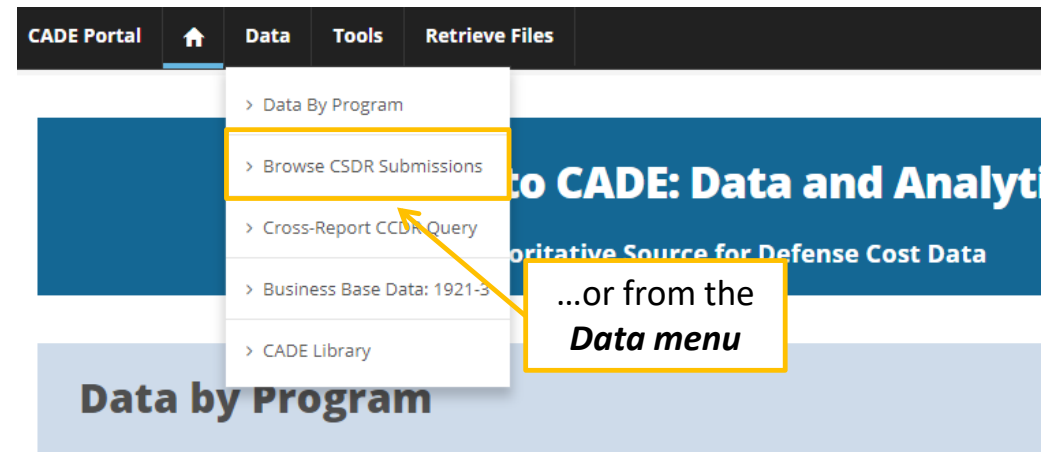
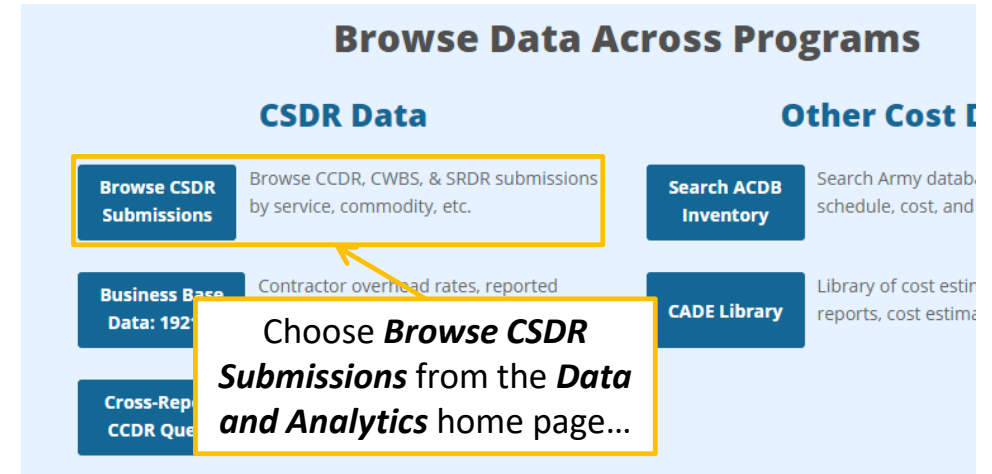
1921-3 Data Cross-Report CCDR Query CARDS ACDB Inventory D&A User Guide Cost Libraries Other Libraries

Endorsed Datasets, Tools and Models Hub

Multiple CSDRs – Flexible Search



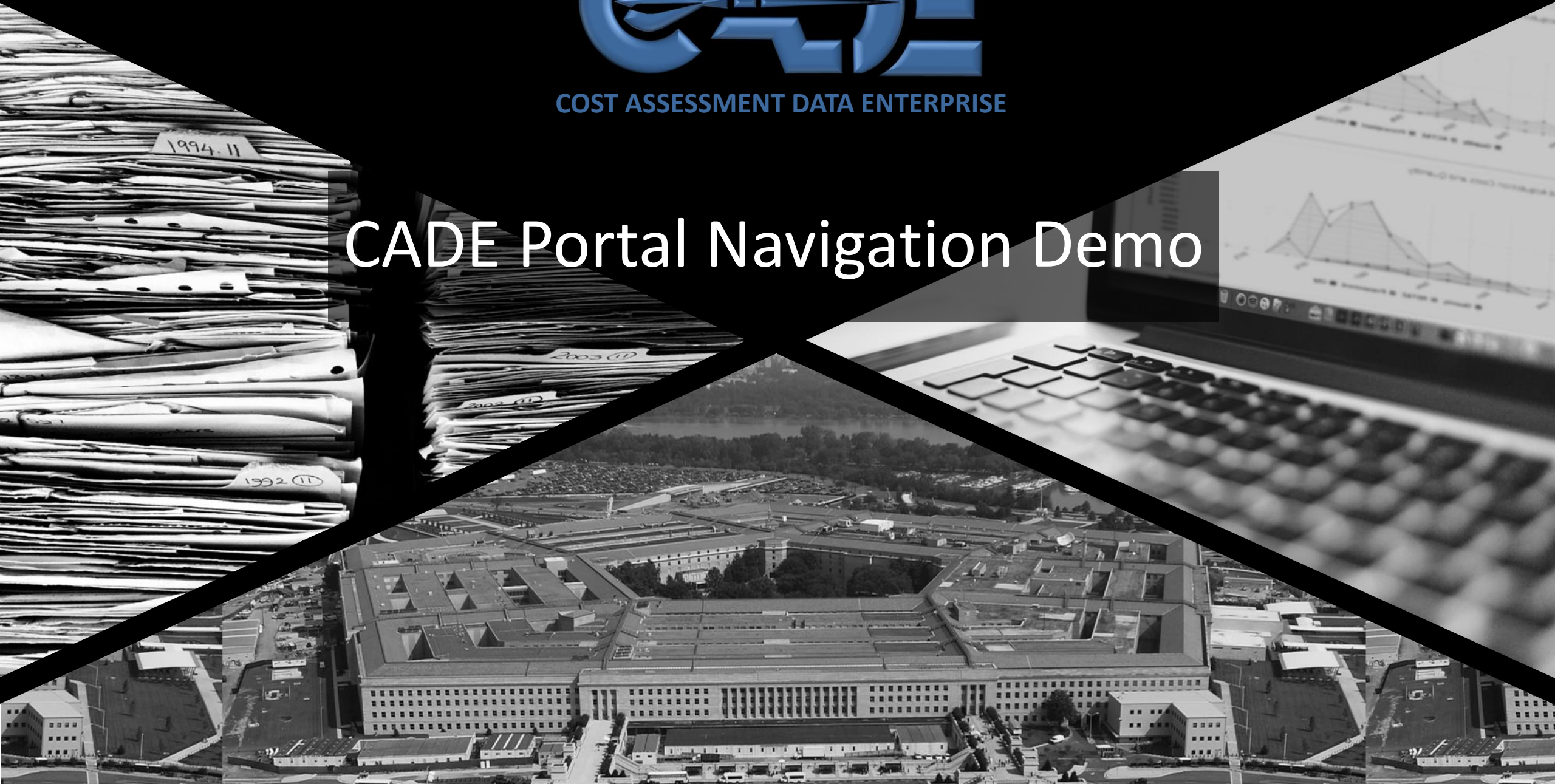
- The ***Browse CSDR Submissions*** function provides a more flexible “DACIMS-like” search/browse
 - Simultaneously locate and download multiple CSDRs
 - Works with any mix of Contractor Cost Data Reports (CCDRs) and Software Resources Data Reports (SRDRs)
- Access to all contract-specific 1921-series forms
 - CDSR (1921), FCHR (1921-1), PCR (1921-2), Sustainment FCHR (1921-5)
 - **Includes FlexFiles!**
- CCDRs are available as both “formatted” and flat file downloads





COST ASSESSMENT DATA ENTERPRISE

CADE Portal Navigation Demo

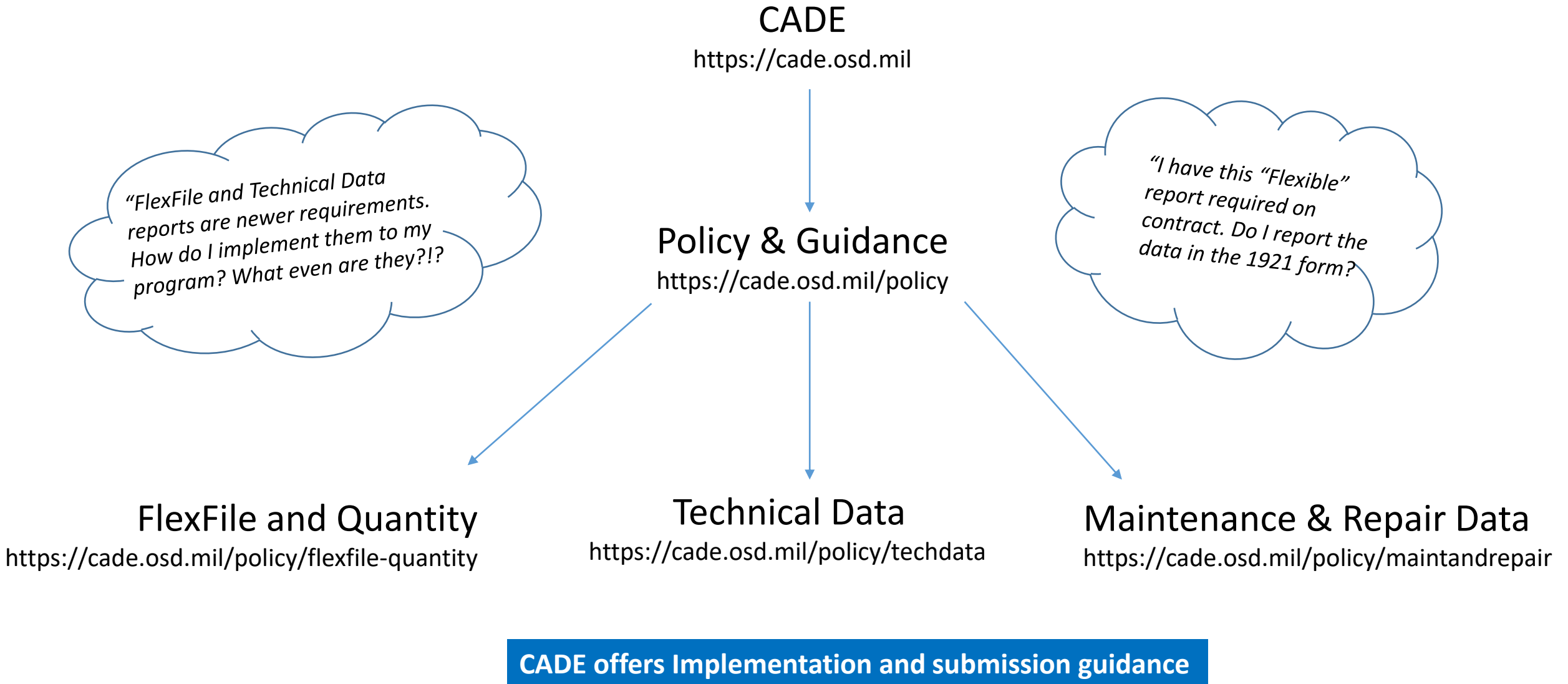




COST ASSESSMENT DATA ENTERPRISE

Additional CSDR Resources







COST ASSESSMENT DATA ENTERPRISE

Next Steps





1) Sign up for a CADE account!



2) Explore CADE and familiarize yourself with the different sections. CADE exists:

- For contractors to submit deliverables
- Government analysts to review the reports
- CWIPs to prepare CSDR plans

Important Documents and POCs



All documents can be found at <https://cade.osd.mil/>

- ✓ Report DIDs (FlexFile, Quantity Data Report, SRDR, and Tech Data Report)
- ✓ Report Implementation Guides
- ✓ Instructions for completing DD 2794
- ✓ New DD Form 2794 Format
- ✓ Draft CDRL Language

See <https://cade.osd.mil/support> for training material and information on upcoming training events

Points of Contact

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FlexFile Lead

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OSD CAPE-Operations Research Analyst

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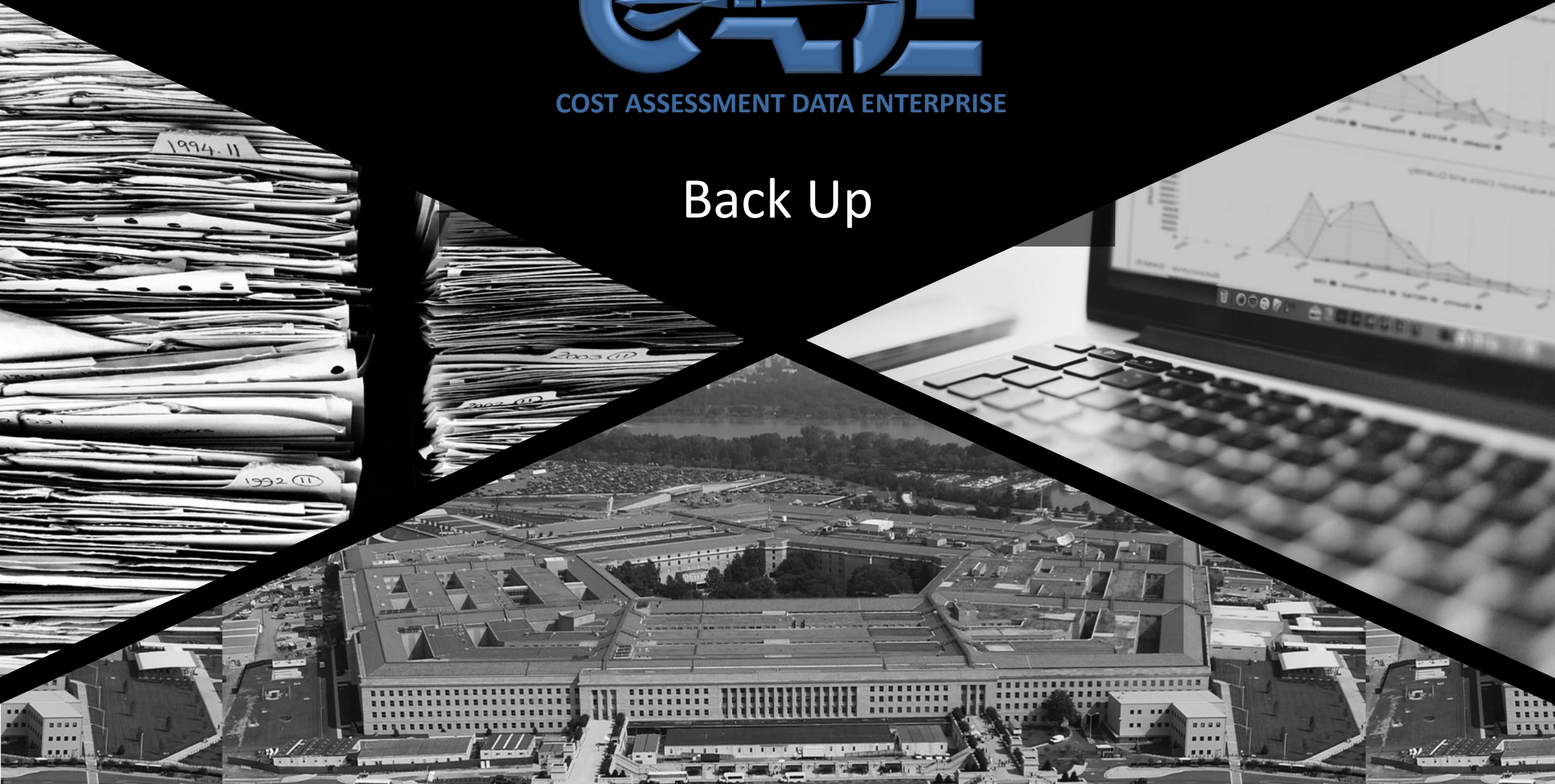
(703) 901-8678

A survey about today's course will be sent out via our survey system later today/tomorrow!



COST ASSESSMENT DATA ENTERPRISE

Back Up



- CSDR DID DI-FNCL-81565C (and other CSDR DIDs):
 - A Prime Contractor: “For the purposes of CSDR reporting, a prime contractor is any contractor that has a direct contract with the Government. The name and address of the prime contractor is provided in Section A of the contract (Standard Form 26, Item 7). Any other contractor associated with the contract is considered to be an associate or subcontractor.”
 - A Subcontract: “A contractual arrangement between a prime contractor and one or more other contractors in which the Government has no direct legal relationship. In a subcontract, a direct legal relationship exists only between the Prime Contractor and one or more other contractors. A subcontract includes any agreement, purchase order, or contractual instrument other than a prime contract calling for supplies or services required for the performance of one or more prime contracts. It usually covers procurement of major components or subsystems that require the subcontractor(s) to do extensive design, development, engineering, and testing to meet a prime contractor’s procurement specifications.”
 - Page 2, under “Requirements – 4. Implementation” that, “Contractors are responsible for implementing CCDR requirements on all subcontracts that meet the reporting thresholds”.



- NDAA 2017 (Sec. 842) added:
- (g) Guidelines and Collection of Cost Data.-(1) The Director of Cost Assessment and Program Evaluation shall, in consultation with the Under Secretary of Defense for Acquisition, Technology, and Logistics, **develop policies, procedures, guidance, and a collection method to ensure that quality acquisition cost data are collected to facilitate cost estimation and comparison across acquisition programs.**
- (2) The program manager and contracting officer for **each acquisition program in an amount greater than \$100,000,000, in consultation with the cost estimating component of the relevant military department or Defense Agency, shall ensure that cost data are collected in accordance with the requirements of paragraph (1).**
- (3) The requirement under paragraph (1) **may be waived only by the Director of Cost Assessment and Program Evaluation.**

**234.7100 Policy.**

- (a) The cost and software data reporting (CSDR) requirement is mandatory for major defense acquisition programs (as defined in 10 U.S.C. 2430), and major automated information system programs (as defined in 10 U.S.C. 2445a) as specified in DoDI 5000.02, Operation of the Defense Acquisition System and the DoD 5000.04–M–1, CSDR Manual. The CSDR system is applied in accordance with the reporting requirements established in DoDI 5000.02. The two principal components of the CSDR system are contractor cost data reporting and software resources data reporting.
- (b) Prior to contract award, contracting officers shall consult with the Defense Cost and Resource Center to determine that the offeror selected for award has proposed a standard CSDR system, as described in the offeror's proposal, in response to the provision at 252.234–7003, that is in compliance with DoDI 5000.02, Operation of the Defense Acquisition System, and the DoD 5000.04–M–1, CSDR Manual.
- (c) Contact information for the Defense Cost and Resource Center and the Deputy Director, Cost Assessment, is located at PGI 234.7100 (DFARS/PGI view).

234.7101 Solicitation provision and contract clause.

- (a) Use the basic or the alternate of the provision at 252.234-7003, Notice of Cost and Software Data Reporting System, in any solicitation that includes the basic or the alternate of the clause at 252.234-7004, Cost and Software Data Reporting.
- (1) Use the basic provision when the solicitation includes the clause at 252.234-7004, Cost and Software Data Reporting—Basic.
 - (2) Use the alternate I provision when the solicitation includes the clause at 252.234-7004, Cost and Software Data Reporting—Alternate I.
- (b) Use the basic or the alternate of the clause at 252.234-7004, Cost and Software Data Reporting System, in solicitations that include major defense acquisition programs or major automated information system programs as follows:
- (1) Use the basic clause in solicitations and contracts for major defense acquisition programs or major automated information system programs that exceed \$50 million.
 - (2) Use the alternate I clause in solicitations and contracts for major defense acquisition programs or major automated information system programs with a value equal to or greater than \$20 million, but less than or equal to \$50 million, when so directed by the program manager with the approval of the OSD Deputy Director, Cost Assessment.

252.234-7003 Notice of Cost and Software Data Reporting System - Basic (NOV 2014)

- (a) This solicitation includes -
- (1) The Government-approved cost and software data reporting (CSDR) plan for the contract, DD Form 2794; and
 - (2) The related Resource Distribution Table.
- (b) As part of its proposal, the Offeror shall -
- (1) Describe the process to be used to satisfy the requirements of the DoD 5000.04-M-1, CSDR Manual, and the Government-approved CSDR plan for the proposed contract;
 - (2) Demonstrate how contractor cost and data reporting (CCDR) will be based, to the maximum extent possible, upon actual cost transactions and not cost allocations;
 - (3) Demonstrate how the data from its accounting system will be mapped into the standard reporting categories required in the CCDR data item descriptions;
 - (4) Describe how recurring and nonrecurring costs will be segregated;
 - (5) Provide comments on the adequacy of the CSDR contract plan and related Resource Distribution Table; and
 - (6) Submit the DD Form 1921, Cost Data Summary Report, and DD Form 1921-1, Functional Cost-Hour Report, with its pricing proposal.
- (c) CSDR reporting will be required for subcontractors at any tier with a subcontract that exceeds \$50 million. The offeror shall identify, by providing comments on the Resource Distribution Table, the subcontractors, or, if the subcontractors have not been selected, the subcontracted effort in this category.

CSDR Requirements: DoDI 5000.02 (p.73)

- Contractor Cost Data Report (CCDR):
 - Required for “all major contract and subcontracts, regardless of contract type” subsequent to MS A approval, valued at more than \$50M (then-year dollars).
 - Not required when (requested waiver is DDCA approved):
 - Procuring commercial systems
 - Procurement of non-commercial systems under competitively priced FFP contracts, as long as competitive conditions continue to exist
- Contract Business Data Report (CBDR):
 - Required for all business entities responsible for contracts with CSDR requirements

Definitions:

Subcontract: “For CSDR purposes, the term “contract” (or “subcontract”) may refer to the entire standalone contract, to a specific task or delivery order, to a series of tasks or delivery orders, to a contract line item number, or to a series of line item numbers within a contract.”

Contract Value: “For CSDR purposes, contract value will represent the estimated price at contract completion (i.e., initial contract award plus all expected authorized contract changes) and *be based on the assumption that all contract options will be exercised.*”



MAJOR CAPABILITY ACQUISITION

- CAPE conducts or approves independent cost estimates (ICEs) for MDAPs and major subprograms prior to:
 - Milestone A
 - Milestone B
 - Low rate initial production
 - Full rate production
 - At any other time considered appropriate by DCAPE
 - Upon the request of USD(A&S) or the milestone decision authority
- CAPE may conduct or approve an ICE or cost analysis to inform the Development Request for Proposal Release Decision Point
- At the discretion of DCAPE or upon the request of the Secretary of the Military Department, CAPE conducts or approves ICEs for sustainment reviews
- CAPE conducts independent cost analysis for certifications following critical Nunn-McCurdy breaches
- CAPE conducts a preliminary cost analysis and final cost analysis for multiyear procurement contracts



SOFTWARE

- CAPE or the SCA must conduct an ICE for programs likely to exceed ACAT I or II thresholds prior to the program entering the execution phase
- The ICE may be updated during the execution phase
- Estimates for programs that do not exceed ACAT II thresholds must be conducted in accordance with the policies and procedures issued by the SCA

DEFENSE BUSINESS SYSTEMS

- CAPE may conduct a cost estimate for defense business systems
- For all other defense business systems, the SCA or designated organization will conduct cost analyses in accordance with guidance issued by the SCA


CONTRACTED SERVICES

- CAPE may conduct a cost estimate for acquisition of a contracted service
- All other cost estimates for contracted services must be conducted in accordance with the policies and procedures issued by the SCA

Cost Analysis Improvement Requirements - OSD Memo dated June 9, 2017



Standard Data Plans
Provides lower level detail than MIL-STD-881D
Sustainment Functional Cost-Hour Report (1921-5)
All sustainment contracts over \$50M
Indefinite Delivery/Indefinite Quantity (IDIQ)
Any IDIQ contract over \$50M
New SRDR Formats
Software Maintenance (contracts over \$1M annually)
Enterprise (ERP) Software
Data Collection for Government efforts
All contracts over \$50M



OFFICE OF THE SECRETARY OF DEFENSE
1600 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-1800

JUN -9 2017

COST ASSESSMENT AND PROGRAM EVALUATION


MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (ACQUISITION, TECHNOLOGY, AND LOGISTICS)
ASSISTANT SECRETARY OF THE ARMY (ACQUISITION, LOGISTICS AND TECHNOLOGY)
ASSISTANT SECRETARY OF THE ARMY (FINANCIAL MANAGEMENT AND COMPTROLLER)
ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT AND ACQUISITION)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT AND COMPTROLLER)
ASSISTANT SECRETARY OF THE AIR FORCE (ACQUISITION)
ASSISTANT SECRETARY OF THE AIR FORCE (FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: DoD Cost Analysis Data Improvement

Reliable and comprehensive cost data is essential to produce credible cost estimates as required in both statute and regulation. CAPE, in collaboration with Army, Navy and Air Force cost centers, has strategically planned and implemented updates to improve cost data collection in DoD. Our goals with the updates are to: improve data collection; improve analyst productivity and quality of cost estimates; close data gaps; and provide the cost, acquisition, and resource allocation organizations with data required for better analysis and decision making. The key lines of effort in this cross-community plan include the following updates to current DoD policies:

- Cost Analysis Requirements Description (CARD)
- Standard Data Plans
- Software Resources Data Report (SRDR)
- Contractor Cost Data Report (CCDR) for Sustainment
- Knowledge Sharing and Data Storage
- Data Collection on Government-Performed Efforts
- Data Collection on Indefinite Delivery/Indefinite Quantity (IDIQ) Contracts
- Strategic Co-Planning

Each update, its corresponding policy or guidance, and points of contact can be found at <http://cade.osd.mil/>. A summary of these initiatives is provided in the attachment to this memorandum. Together these updates will greatly improve the ability of the DoD cost analysis community to support acquisition and resourcing organizations in the Department.


 Jamie M. Morin
 Director


Attachment: As stated



All Acquisition programs with total estimated expenditure over \$100M must implement cost reporting

Clarifies cost reporting requirements for ACAT II, III, and IV Programs

Established NON ACAT I "Pilot" Initiative



OFFICE OF THE SECRETARY OF DEFENSE
1800 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-1800

FEB 16 2018

COST ASSESSMENT AND PROGRAM EVALUATION

**MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
UNDER SECRETARIES OF DEFENSE
DEPUTY CHIEF MANAGEMENT OFFICER
CHIEFS OF THE MILITARY SERVICES
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
DEPARTMENT OF DEFENSE CHIEF INFORMATION OFFICER
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES**

SUBJECT: Implementation of Data Reporting Requirements for Acquisition Programs in Accordance with the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2017

Section 842 of the NDAA for FY 2017 (Public Law 114-328) amended section 2334 of title 10, United States Code (section 2334), to require that the Director of Cost Assessment and Program Evaluation (CAPE) develop policies, procedures, guidance, and a collection method to ensure that quality acquisition cost data are collected to facilitate cost estimation and comparison across acquisition programs. Further, the Department is to ensure that cost data is collected in accordance with these policies and procedures for each acquisition program in an amount greater than \$100 million. This memorandum sets forth policies and procedures and an implementation plan in accordance with section 2334(g).

The amended section 2334 greatly expands the cost data reporting requirement to all acquisition programs with eventual total expenditures of \$100 million. In particular, the Department needs to improve visibility into the planned resources and actual expenditures for Acquisition Category (ACAT) II, III, and IV acquisition programs that meet this criterion. It is essential that the Department obtain improved internal visibility into this information to enable the development of sound cost reporting policies and procedures for this category of programs.

To improve the Department's visibility into this information, CAPE will create a working group to improve the quality of the information that is collected on acquisition programs that are below ACAT I program resource thresholds but that exceed the resource threshold specified in section 2334(g). The working group will create a reporting mechanism for use by DoD components that will allow programs below the ACAT I threshold to submit historical actual and planned future funding information for use in the DoD Enterprise. This reporting of improved funding information will be implemented with the submission of the FY 2020 Program Objective Memoranda (POMs) next year. The working group will also identify instances in which the Director, CAPE, may elect to waive collection of cost data from an entity (e.g., the contractor involved is a very small business, collection would not be cost effective, etc.). Finally, the working group will recommend whether a legislative proposal is necessary to refine the requirements in section 2334(g), and if so, draft such a proposal. By March 15, 2018, I request that each DoD Component designate a representative to participate in the working group by




Rapid Acquisition Programs

Rapid Prototyping Rapid Fielding

All Acquisition programs with total estimated expenditure over \$100M (NDAA 2017) (inclusive of development, procurement and system specific military construction)

All contracts greater than \$20M (regardless of contract type)

CSDR plan must be approved in 21 calendar days from day submitted to DCARC



OFFICE OF THE SECRETARY OF DEFENSE
1800 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-1800

AUG 30 2018

**MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
UNDER SECRETARIES OF DEFENSE
CHIEF MANAGEMENT OFFICER
CHIEFS OF THE MILITARY SERVICES
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
DEPARTMENT OF DEFENSE CHIEF INFORMATION OFFICER
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES**

SUBJECT: Implementation of Cost Data Reporting Requirements for Middle Tier Acquisition Programs

Reference: (a) Implementation of Data Reporting Requirements for Acquisition Programs in Accordance with the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2017, February 16, 2018

Section 842 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2017, Public Law 114-328, amended section 2334 of title 10, United States Code (section 2334), to require that the Director of Cost Assessment and Program Evaluation (CAPE), in consultation with the Under Secretary of Defense for Acquisition and Sustainment, develop policies, procedures, guidance, and a collection method to ensure that quality acquisition cost data are collected to facilitate cost estimation and comparison across acquisition programs. In accordance with section 2334(g), this memorandum sets forth interim cost data reporting policies and procedures for rapid prototyping and rapid fielding programs executed under the Middle Tier acquisition authorities granted by Section 804 of the FY 2016 NDAA, Public Law 114-92, and serves as a supplement to Reference (a).

Consistent with section 2334, cost data reporting is required for all Middle Tier acquisition programs with total estimated acquisition expenditures greater than \$100 million. For the purposes of this threshold, total estimated acquisition expenditures are the estimated total cost for development, procurement, and system-specific military construction for the defined Middle Tier acquisition program. For covered programs, cost reporting is required to be submitted to CAPE for all contracts and individual efforts (e.g., scope performed by Government organizations) greater than \$20M in accordance with the attached Middle Tier policies and procedures. The Deputy Director of Cost Assessment shall be responsible for approval of cost data collection plans for programs that are projected to require an eventual total expenditure of greater than \$480M (FY14 \$) for research, development, test and evaluation (RDT&E) or greater than \$2.79B (FY14 \$) for procurement. The MILDEP Cost Center Director shall be responsible for approval of cost data collection plans for Middle Tier acquisition programs anticipated to require expenditures of less than \$480M (FY14 \$) for RDT&E and less than \$2.79B (FY14 \$) for procurement. The Deputy Director of Cost Assessment shall be responsible for cost reporting waivers for all Middle Tier programs.

NON ACAT I Requirements (ACAT II)-OSD Memo dated January 4, 2019




All ACAT II programs,
for any contract or
subcontract over
\$50M

Any high
risk/technical/ interest
contract between
\$20M -\$50M as
determined by CWIPT,
Program Manager, or
DDCA

Service Cost Center
Approval Authority

Cost reporting waived
for all ACAT III and IV
programs unless
identified as "Pilot"
program in 2/16/2018
OSD Memo



OFFICE OF THE SECRETARY OF DEFENSE
1800 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-1800

JAN 04 2019

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
UNDER SECRETARIES OF DEFENSE
CHIEF MANAGEMENT OFFICER
CHIEFS OF THE MILITARY SERVICES
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
DEPARTMENT OF DEFENSE CHIEF INFORMATION OFFICER
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Updated Implementation of Cost Data Reporting Requirements in Accordance with Section 2334(g)

References: (a) Implementation of Data Reporting Requirements for Acquisition Programs in Accordance with the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2017, February 16, 2018
(b) Implementation of Cost Data Reporting Requirements for Middle Tier Acquisition Programs, August 30, 2018

Section 842 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2017, Public Law 114-328, amended section 2334 of title 10, United States Code (section 2334), to require the Director of Cost Assessment and Program Evaluation (CAPE), in consultation with the Under Secretary of Defense for Acquisition and Sustainment, develop policies, procedures, guidance, and a collection method to ensure quality acquisition cost data is collected to facilitate cost estimation and comparison across acquisition programs. In accordance with section 2334(g), this memorandum updates existing cost data reporting policies and in doing so supersedes Reference (a).

Cost and Software Data Reporting (CSDR), consistent with the requirements of DoDI 5000.02, Table 7 of Enclosure 1, is now required for ACAT II programs. Cost reporting plan approval for ACAT II programs is delegated to the MILDEP Cost Center Director or the Component equivalent. Consistent with statute, the waiver of cost reporting requirements on required programs may only be granted by the CAPE Deputy Director, Cost Assessment.

In accordance with military department requests, CSDR requirements are waived for specific ACAT II programs as shown in Attachment A. Also, CSDR requirements are waived for all ACAT II contracts with a planned final Request for Proposal (RFP) release prior to March 1, 2019. As is the case for all CSDR requirements, tailoring will be considered on a case-by-case basis by the relevant approval authority to ensure the Department receives meaningful insight into actual costs that is useful for preparation of cost forecasts, while minimizing the burdens associated with cost reporting.

1

Note: Deputy Director of Cost Assessment (DDCA) retains waiver authority

FlexFile Requirements -OSD Memo dated March 22, 2019



Applicable to all new contracts as of May 15, 2019

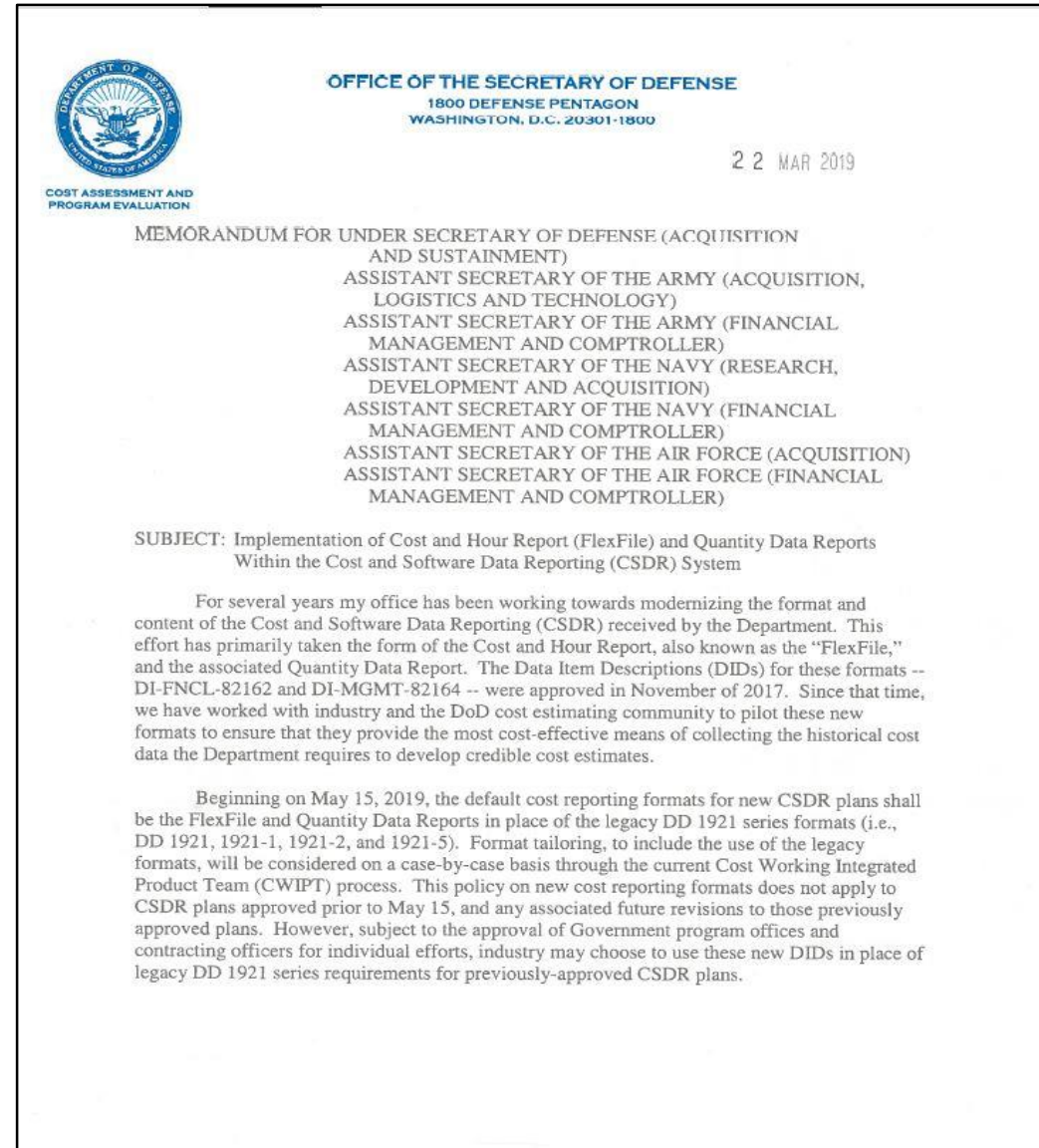
Usage of Legacy reports will be considered by CWIPT, with justification

Not intended to be applied retroactively

Implemented at the request of Program Office or Contractor

Contractor Submission Flexibility

USG Excel Template
Native Format in Excel
JSON



Standard CSDR Contract Data Requirements List (CDRL) Template

CONTRACT DATA REQUIREMENTS LIST (1 Data Item)										Form Approved OMB No. 0704-0188		
<p>The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Project Collection (0704-0188), Washington, DC 20503.</p> <p>Notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block 1.</p>												
A. CONTRACT LINE ITEM NO.		B. EXHIBIT		C. CATEGORY: TDP _____ TM _____ OTHER _____			FNCL					
D. SYSTEM/ITEM				E. CONTRACT/PR NO.			F. CONTRACTOR					
1. DATA ITEM NO. (XXXXX)		2. TITLE OF DATA ITEM Cost and Hour Report (FlexFile)					3. SUBTITLE					
4. AUTHORITY (Data Acquisition Document No.) DI-FNCL-82162				5. CONTRACT REFERENCE SOW para (XX)			6. REQUIRING OFFICE NAVAIR 4.2					
7. DD 250 REQ LT		9. DIST STATEMENT REQUIRED (See Blk 16)		10. FREQUENCY ASREQ (See Blk 16)		12. DATE OF FIRST SUBMISSION See Blk 16		14. DISTRIBUTION				
8. APP CODE N/A				11. AS OF DATE See Blk 16		13. DATE OF SUBSEQUENT SUBMISSION See Blk 16						
16. REMARKS								a. ADDRESSEE				
<p>Block 9: No Distribution Statement Required. Distribution statements governed by DoDI 5230.24 "Distribution Statements on Technical Documents" do not apply to financial data including Software Resource Data Reports (SRDRs).</p> <p>Blocks 10 - 14: Prepare the FlexFile in accordance with DI-FNCL-82162, (or the most recently approved version) and the OSD Deputy Director, Cost Assessment (DDCA)-approved Contract Cost and Software Data Reporting (CSDR) Plan (DD Form 2794). The OSD DDCA-approved Contract CSDR Plan is included as a contract attachment (XX).</p> <p>Contractors shall be required to submit the FlexFile at frequencies specified in the OSD DDCA approved Contract CSDR Plan in the contract. The Contract CSDR Plan uses the event field as the driver for the submission of the reports, not the "As of Date." If the event slips, the contractor must notify the Government Program Office that a date change is needed. It is the responsibility of the Government Program Office to submit a date change request for the event-driven date through the CSDR Submit-Review (CSDR-SR) system for approval by the Defense Cost and Resource Center (DCARC) before the date reflected in the OSD DDCA approved Contract CSDR Plan occurs.</p> <p>The Government requests that all previously reported Tier 2 standard functional categories be reported in the Cost-Hour (FlexFile). The FlexFile shall be delivered in MS Excel (.xlsx) or comma separated values (.csv) in the contractor's format of choosing, so long as it fulfills the requirements of the Contract CSDR Plan and is in accordance with the FlexFile DID or in JavaScript Object Notation (JSON) as described in the FlexFile File Format Specification (FFS) and Data Exchange Instructions (DEI) referenced in the FlexFile DID Section III. All FlexFiles shall be submitted electronically using the CSDR-SR website at https://csrc.osd.mil. Data submitters must register through the DCARC website and possess a DoD-approved ECA digital certificate or DoD-issued CAC to obtain a DCARC Portal account and be authorized to upload content. Users can obtain access by submitting user information about themselves and their organizations to the DCARC Portal and requesting a CSDR submitter user role. All DCARC Portal accounts need to be renewed at least annually.</p> <p>Subcontractor Reporting: Prime contractors are responsible for flowing down existing CSDR requirements contained in their prime contracts to all subcontractors who meet the reporting thresholds specified in the DoDI 5000.02, or as required by the CWIPT. The prime contractor shall be required to work with the CWIPT and all appropriate subcontractors to prepare a separate Subcontract CSDR Plan for submission to the DCARC for DDCA approval.</p>								b. COPIES		Final		
								Draft		Reg		
<p>15. TOTAL</p>								0		1		
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								0		0		
								G. PREPARED BY				
J. DATE												

Standard CSDR Request for Proposal (RFP) Template

The contractor shall systematically collect and report actual contract costs to provide DoD cost analysts with needed data to estimate future costs. Contractor reports shall be prepared in accordance with the instructions contained in the most recently approved versions of **DI-FNCL-81565C and (DI-FNCL-81566C or DI-FNCL-81992) OR DI-FNCL-82162 and DI-MGMT-82164**

IAW DODI 5000.02 and DFARS 252.234-7003, Notice of Cost and Software Reporting System:

**DFARS
252.234-7003,
Notice of
Cost and
Software
Reporting
System**

- 1) This solicitation includes:
 - a) The Government-approved Contract Cost and Software Data Reporting (CSDR) Plan, DD Form 2794; and
 - b) The related Resource Distribution Table.
- 2) The contractor as part of the response to the solicitation will:
 - a) Describe the process to be used to satisfy the requirements of the DoD 5000.04-M-1, CSDR Manual, and the Government-approved Contract CSDR Plan for the proposed contract;
 - b) Demonstrate how contractor cost and data reporting (CCDR) will be based, to the maximum extent possible, upon actual cost transactions and not cost allocations;
 - c) Demonstrate how the data from its accounting system will be mapped into the standard reporting categories required in the CCDR data item descriptions;
 - d) Describe how recurring and nonrecurring costs will be segregated;
 - e) Submit the **DD Form 1921 Cost Data Summary Report, and DD Form 1921-1 Functional Cost-Hour Report / 1921-5, Sustainment Functional Cost-Hour Report, or Cost and Hour Report (FlexFile)** in specified format (JSON, USG Three (3) Part Template, or Contractor Native), and **Quantity Data Report** with its pricing proposal.
 - f) The contractor will identify any subcontractor at any tier with a subcontract that exceeds \$50 million, by providing comments on the Resource Distribution Table, the subcontractors, or, if the subcontractors have not been selected, the subcontracted effort in this category and provide to the Government.

Standard CSDR Statement of Work (SOW) Template

1.1.1 Cost and Software Data Reporting (CSDR)

The Contractor shall use a documented standard Cost and Software Data Reporting (CSDR) process that satisfies the guidelines contained in the DoD 5000.04–M–1, CSDR Manual.

1.1.1.1 Contractor Cost Data Reporting (CCDR)

The Contractor shall:

- a. Use the Government-approved Contract Cost and Software Data Reporting (CSDR) Plan, DD Form 2794, and the related Resource Distribution Table (RDT) as the baseline for reporting provided as contract attachment (X);
- b. Prepare and deliver to the Government a Cost and Hour Report (FlexFile) (CDRL AXXX) for every indicated data element (Data Group B) within the Government-approved Contract CSDR Plan;
- c. Provide a Work Breakdown Structure (WBS) Dictionary and Remarks as a part of the FlexFile format (Data Group C) for every data element identified within the approved Contract CSDR Plan.
- d. Prepare and deliver to the Government a Quantity Data Report (CDRL BXXX) for every indicated data element (Data Group B) within the Government-approved Contract CSDR Plan;
- e. Prepare and deliver to the Government the Maintenance and Repair (M/R) report in accordance with (CDRL CXXX). The cost elements to be included in the M/R will be determined at the post award conference.
- f. Prepare and deliver to the Government DD Form 1921-3 (CDRL DXXX) (Remove if not applicable);
- g. Provide updates to the Government-approved Contract CSDR Plan and related RDT for Government approval. Updates include: aligning reporting Subcontractor effort to a single WBS element and updating the RDT as new Subcontracts are awarded;
- h. Hold a post award meeting after contract award to include a discussion of the Contractor's standard cost and software data reporting process that satisfies the guidelines contained in the DoD 5000.04-M-1 (CSDR Manual) and the requirements in the Government-approved Contract CSDR Plan and related RDT.

DFARS
252.234-7004
Cost and
Software Data
Reporting
System

Standard CSDR Statement of Work (SOW) Template (continued)

DFARS
252.234-7004
Cost and
Software Data
Reporting
System

1.1.1.2 Subcontractor Cost Data Reporting

The Contractor shall:

- a. Flow-down Contractor Cost and Software Data Reporting (CSDR) requirements to any Subcontracts valued over \$50 million or any Subcontracts valued between \$20 million and \$50 million that are designated by the Cost Working Integrated Product Team (CWIPT) as high risk, high value, high technical interest or an middle-tier acquisition (804);
- b. Notify the Government of any subcontractor changes or new subcontracts awarded for subcontracts that exceeds \$50 million;
- c. Flow-down DD Form 1921-3 (**CDRL DXXX**) to any Subcontractors required to submit Cost and Software Data Reporting. (**Remove 1921-3 requirement if not applicable**)

Please edit the selections in red and use one paragraph below, if applicable.

1.1.1.3 Software Resources Data Reporting (SRDR): Development and Maintenance Reports and Data Dictionary

The Contractor shall:

- a. Provide the Government with information on the software development size, context, and technical information for the entire software product;
- b. Prepare and deliver to the Government DD Form 3026-1, Software Development Report (**CDRL EXXX**) for every data element within the Government-approved Contract CSDR Plan, DD Form 2794 provided as contract attachment (**X**);
- c. Flow down all SRDR requirements to subcontracts valued over \$20M (then-year dollars) or any subcontracts priced below \$20 million designated by the Cost Working Integrated Product Team (CWIPT) as high-risk or high-technical-interest.

OR

The Contractor shall:

- a. Provide the Government with information on the software maintenance size, context and technical information for the entire software maintenance effort;
- b. Prepare and deliver to the Government DD Form 3026-2, Software Maintenance Report (**CDRL FXXX**) for every data element within the Government-approved Contract CSDR Plan, DD Form 2794 provided as contract attachment (**X**);
- c. Flow down all SRDR requirements to all subcontracts whose software maintenance scope is valued over \$1M per year (then-year dollars).

Browse CSDR Submissions



- Apply filters to narrow down search

Use **Report Type** to select CCDR, SRDR or CWBS Dictionary

Keywords: FlexFiles

☒ Include Legacy Submissions ☒ Include WBS Elements

Report Type

Enter any keyword or keyword combination (FlexFile, PMP (i.e., radar))

Specify whether to apply search results to WBS elements; Include/exclude Legacy (non-flat-file-exportable submissions)

14 records found. Page 1 of 2

Rows per page: 10

Program	Model	Contract Task	As Of	Contract Number	Contractor Type	Reporting Contractor	Submission Event	Report Type	Report Cycle	# of Reports	# of Files
PAC-3 - Patriot Advan...	PAC-3		1/2/2018	W31P4Q-11-C-0001 (...)	Prime	Lockheed Martin Cor...	Interim Report - FlexF...	FlexFile	Initial	1	3
B-2 EHF SATCOM AN...	AN/APC...		1/5/2018	F33657-99-D-0028 (FL...	Prime	Northrop Grumman ...	B-2 FlexFile Pilot	FlexFile	Initial	1	2
Bradley ECP	Bradley		1/13/2018	W56HZV-12-C-0358 (F...	Prime	BAE Systems	FlexFile Pilot Bradley ...	FlexFile	Initial	1	3
AEHF - Advanced Ext...		AEHF O&S Consolidat...	11/27/2016	FA8823-15-C-0001 (FL...	Prime	Lockheed Martin Cor...	AEHF COOLS FlexFile ...	FlexFile	Initial	1	2
Bradley ECP	Bradley M2/MD Vehi...	Bradley ECP2 TD Pha...	4/27/2018	W56HZV-12-C-0358 (F...	Prime	BAE Systems	FlexFile Pilot Bradley ...	FlexFile	Initial	1	2
STRYKER - Armored V...		30MM Cannon Phase...	12/31/2019	STRYKER ICV LETHALI...	Prime	General Dynamics Co...	Stryker ICV Lethality ...	FlexFile	Initial	1	2
DDG 51 - ARLEIGH BU...		DDG 51 FRP Class Flig...	4/30/2015	N00024-11-C-2309 (F...	Prime	Huntington Ingalls Sh...	DDG 113 FlexFile Pilot	FlexFile	Initial	1	1
PAC-3 - Patriot Advan...			9/1/2014	PAC-3 FLEXFILE	Prime	Lockheed Martin Cor...	PAC-3 FlexFile			0	0
SBIRS HIGH - Space-B...				FILE (FA...	Prime	Lockheed Martin Cor...	GEO 5-6 FlexFile	FlexFile		0	0
F-35 - Lightning II Join...				EXFILE (...)	Prime	Lockheed Martin Cor...	LRIP 3 FlexFile	Other		0	0

Running tally of Submissions that match filter criteria

Export submission metadata and download native files

Export Metadata Download Files

This slide displays example data, created for educational purposes, rather than actual contractor data.

Browse CSDR Submissions Details Page

[Back to Search](#)

Submission Metadata

Program:	STRYKER - Armored Vehicle	Phase:	N/A
MIL-STD:	SURFACE VEHICLE	Contract Task:	30MM Cannon Phase 2 Development
Contract #:	STRYKER ICV LETHALITY UPGRADE PHASE II DEVELOPMENT	Sub Event:	Stryker ICV Lethality Upgrade Phase II Development
Reporting Ctr:	General Dynamics Corporation	Report Cycle:	Initial
Division:	Land Systems Division	As Of Date:	12/31/2019
Location:	Sterling Heights, MI	Plan #:	WBS given in original submission
Prime/Sub:	Prime	Submission ID:	47866

Submission Files

Header Data 1921 Cost Data

[Formatted File Export](#) [Export to Excel](#)

File Name	WBS ELEMENT CODE	WBS REPORTING ELEMENTS	NUMBER OF UNITS TO DATE	COSTS INCURRED TO DATE (thousands of U.S. Dollars)			NUMBER OF UNITS AT COMPLETION	COSTS INCURRED AT COMPLETION (thousands of U.S. Dollars)		
				NONRECURRING	RECURRING	TOTAL		NONRECURRING	RECURRING	TOTAL
Round 3_STRYKER_GDLS 30MM Production_Jan17_2020	1.0	TOTAL	10	\$4452822977.0	\$4449920771.0	\$8902743748.0	10/0	\$4452822977.0	\$4449920771.0	\$8902743748.0
Round 3_STRYKER_GDLS 30MM Production_DOS.zip	1.1	Subsystem 1.1	20	\$3598704958.0	\$3594763883.0	\$7193468841.0	20/0	\$3598704958.0	\$3594763883.0	\$7193468841.0
	1.1.1	Subsystem 1.1.1	0	\$15571725.0	\$15540979.0	\$31112704.0	0	\$15571725.0	\$15540979.0	\$31112704.0
	1.1.2	Subsystem 1.1.2	200	\$36076646.0	\$36099436.0	\$72176082.0	200/0	\$36076646.0	\$36099436.0	\$72176082.0
	1.1.3	Subsystem 1.1.3	0	\$105062496.0	\$104141873.0	\$209204369.0	0	\$105062496.0	\$104141873.0	\$209204369.0
	1.1.4	Subsystem 1.1.4	0	\$3205411874.0	\$3201941379.0	\$6407353253.0	0	\$3205411874.0	\$3201941379.0	\$6407353253.0
	1.1.4.1	Subsystem 1.1.4.1	0	\$811353545.0	\$810383227.0	\$1621736772.0	0	\$-	\$-	\$-
	1.1.4.2	Subsystem 1.1.4.2	0	\$1271507537.0	\$1268989134.0	\$2540496671.0	0	\$-	\$-	\$-
	1.1.4.3	Subsystem 1.1.4.3	0	\$15901322.0	\$15945578.0	\$31846900.0	0	\$-	\$-	\$-
	1.1.4.4	Subsystem 1.1.4.4	0	\$679893027.0	\$682025741.0	\$1361918768.0	0	\$-	\$-	\$-
	1.1.4.5	Subsystem 1.1.4.5	0	\$74647228.0	\$75129132.0	\$149776360.0	0	\$-	\$-	\$-
	1.1.4.6	Subsystem 1.1.4.6	0	\$352109215.0	\$349468567.0	\$701577782.0	0	\$-	\$-	\$-
	1.1.5	Subsystem 1.1.5	0	\$236582217.0	\$237040216.0	\$473622433.0	0	\$236582217.0	\$237040216.0	\$473622433.0
	1.1.5.1	Subsystem 1.1.5.1	0	\$11504988.0	\$11503700.0	\$23008688.0	0	\$-	\$-	\$-
	1.1.5.2	Subsystem 1.1.5.2	0	\$18999518.0	\$19017065.0	\$38016583.0	0	\$-	\$-	\$-
	1.1.5.3	Subsystem 1.1.5.3	0	\$21234824.0	\$21293666.0	\$42528490.0	0	\$-	\$-	\$-
	1.1.5.4	Subsystem 1.1.5.4	0	\$50216239.0	\$50251521.0	\$100467760.0	0	\$-	\$-	\$-
	1.1.5.5	Subsystem 1.1.5.5	0	\$17939627.0	\$17985623.0	\$35925250.0	0	\$-	\$-	\$-
	1.1.5.6	Subsystem 1.1.5.6	0	\$116687021.0	\$116988641.0	\$233675662.0	0	\$-	\$-	\$-
	1.2	Subsystem 1.2	0	\$46416008.0	\$46624880.0	\$93040888.0	0	\$46416008.0	\$46624880.0	\$93040888.0
	1.3	Subsystem 1.3	0	\$432744539.0	\$432534470.0	\$865279009.0	0	\$432744539.0	\$432534470.0	\$865279009.0
	1.3.1	Subsystem 1.3.1	0	\$349900225.0	\$349585498.0	\$699485723.0	0	\$349900225.0	\$349585498.0	\$699485723.0
	1.3.2	Subsystem 1.3.2	0	\$60594104.0	\$60678795.0	\$121272899.0	0	\$60594104.0	\$60678795.0	\$121272899.0

Administrative Files

File Name



CSDR Cost and Hour Report Template_STRYKER RM

Parsed 1921-Series Reports

Report Name	Derived From	As Of Date	Subtotal, At Complete (\$k)			% Complete	Actions
			NR	Rec	Tot		
Stryker ICV Lethality Upgrade Phase II Development							Q D B

Bulk download submission files

Export


Download excel version of formatted 1921 & flat file export (metadata, remarks & definitions)

Browse CSDR Submissions Details

Apply filters to narrow down search, including Report Type

Use **Report Type** to select CCDR or SRDR...

Clear All

Keywords  ☒ Include Legacy Submissions ☒ Include WBS Elements



Report Type

Commodity Program Phase

Reporting Contractor Prime/Sub Contract Type

Service Published thru As of

...then use **Report Type** column header to isolate specific types (e.g., FlexFile, SRDR Initial)

 Submissions (9398)  CCDR Reports (8149)

Specify whether to include non-flat-file-exportable reports

Running tally of Reports that match filter criteria

Report Type	Report Cycle	# of Reports
FlexFile, Quantity Data Report		
FlexFile		

Show items with value that:

Contains

flex

Filter Clear



Browse CSDR Submissions

Commodity (all)	Program (all)	Phase (all)
Reporting Contractor (all)	Prime / Sub (all)	Contract Type (all)
Service (all)	Publish Date (min) mm/dd/yyyy	Publish Date (max) mm/dd/yyyy
Report Type (all)	As of Date (min) mm/dd/yyyy	As of Date (max) mm/dd/yyyy
Enter a contract number or keyword...		Go
<input checked="" type="checkbox"/> Include Legacy Submissions		Clear All

First 500 of 6303 results retrieved. Add filters to narrow your selection.

Group data by dragging column headers here

Program	Model	Contract Tasks	As of Date	Contract Number	Contractor Type	Reporting Contractor	Submission Event	Report Type	Report Cycle	# of Reports	# of Files
Example	Test	Round 0_PAC3 cplan	09/24/2018	XYZ-09-C-1234	Prime	TBD	FlexFile Test	FlexFile	Interim	1	2

(File package limit is 500 submissions)

Download Files

Export Metadata

FlexFiles can be accessed using the Browse CSDR Submissions feature in Data & Analytics
Utilize filters to narrow search results > select submission event.



An analyst can access a FlexFile in the CSDR-SR in four primary ways...

Major Errors (3) Minor Errors (7) History View Reports References

Contract Data Report Data

This report was derived from a Flex-file. [Click here to view associated tables](#)

1 Export Excel Template 2 Export Pivot Data

Report Name: LRIP 1

Header Data 1921 Cost Data

3 Formatted File Export 4 Export to Excel

WBS ELEMENT CODE	WBS REPORTING ELEMENTS	NUMBER OF UNITS TO DATE	COSTS INCURRED TO DATE (thousands of U.S. Dollars)			NUMBER OF UNITS AT COMPLETION	COSTS INCURRED AT COMPLETION (thousands of U.S. Dollars)		
			NONRECURRING	RECURRING	TOTAL		NONRECURRING	RECURRING	TOTAL
1.0	Ground Vehicle System	0	\$114729323.1	\$698279694.4	\$813009017.5	0	\$-	\$-	\$-
1.1	Family of Vehicles	0	\$18727759.4	\$620912367.1	\$639640126.6	0	\$-	\$-	\$-
1.1.1	Vehicle Integration, Assembly, Test and Checkout	0	\$9558223.9	\$141486091.4	\$151044315.3	0	\$10551929.5	\$156195468.5	\$166747398.1
1.1.2	Hull/Frame/Body/Cab	0	\$-	\$84391370.1	\$84391370.1	0	\$-	\$93164985.1	\$93164985.1
1.1.3	System Survivability	0	\$-	\$86317559.1	\$86317559.1	0	\$-	\$95291427.3	\$95291427.3
1.1.4	Turret Assembly	0	\$524784.2	\$-	\$524784.2	0	\$579342.5	\$-	\$579342.5
1.1.5	Suspension/Steering	0	\$-	\$106241434.3	\$106241434.3	0	\$-	\$117286656.6	\$117286656.6
1.1.6	Vehicle Electronics	0	\$8362147.6	\$49893978.4	\$58256126.0	0	\$9231505.0	\$55081126.8	\$64312631.8
1.1.7	Power Package/Drive Train	0	\$-	\$123728436.2	\$123728436.2	0	\$-	\$136591666.9	\$136591666.9
1.1.8	Auxiliary Automotive	0	\$-	\$25162403.2	\$25162403.2	0	\$-	\$27778372.5	\$27778372.5

- 1 Export Excel Data Model Template**
FlexFile data provided in Excel data model structure
- 2 Export Pivot Data**
Actual dollars and labor hours according to the data elements in Data Group E of the approved FlexFile DID
- 3 Formatted File Export**
Excel version of formatted 1921 DD Form
- 4 Export to Excel**
Excel flat file with Metadata, Remarks, and Definitions equivalent to that provided in the 1921 DD Form